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ADMINISTRATIVE COUNTY OF ESSEX



**REPORT**

OF THE

**MEDICAL OFFICER OF HEALTH**

FOR THE YEAR 1932.

WILLIAM A. BULLOUGH, M.B., M.Sc., D.P.H.,  
COUNTY MEDICAL OFFICER OF HEALTH.

Chelmsford:

PRINTED BY JOHN DUTTON, 8, TINDAL STREET.





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Institutional treatment for suitable patients continues to be provided, an average number of 497 beds being kept occupied during the year in institutions under the County Tuberculosis Scheme. The report of the Committee on Local Expenditure was issued by the Ministry of Health in November, 1932. It was not found possible to further economise in regard to the provision of institutional treatment in Essex, as for a number of years special attention has been paid to the use of beds by the right type of patient.

An increase in the beds at the Black Notley Sanatorium from 184 to 188 was made, and the extra four beds provided additional accommodation for adult male surgical cases.

Consideration was given during the year to the question of providing a new sanatorium for male patients, but no definite decision has yet been reached.

Dr. John F. Beale gives particulars of the work carried out by him as Bacteriologist for Essex during the year under review. I am grateful to Dr. Beale for his helpful co-operation throughout the year, and for the contribution which he has made to this Annual Report.

A further milk sampling campaign was undertaken, and the results of the biological examinations show that 6.4 per cent. of the samples contained tubercle bacilli. This is the lowest percentage recorded since the biological examinations were commenced in 1928. The average figure for England & Wales was 6.7 per cent. Many farmers in the County have set a good example by building up and maintaining healthy herds, and this example should be followed by the rest of the dairy community. More attention must be paid to the need for securing the early elimination of all animals affected with disease, the further improving of the methods of feeding and management, and the general establishment of good housing for calves and ewes, particularly the former. These are important factors in any campaign to provide milk fit in every way for human consumption.

Reports upon housing conditions in the rural areas, which the Rural District Councils are required to furnish under the Housing Act, 1930, have been considered by the Public Health and Housing Committee from time to time during the year. Special investigations were carried out in three Rural Districts, necessitating appropriate representations being made to the Rural District Councils concerned. These reports and investigations again revealed the wide variation in the amount of work undertaken in the Rural Districts, particularly in regard to the partially unfit houses. This may be due partly to insufficient staff in some of the rural areas. In other rural areas, however, it would appear that the need for carrying out inspections systematically and regularly, and for allocating a definite part of each week to this important part of the duties has not been fully appreciated. In this connection, it should be remembered that the Housing Consolidated Regulations, 1925, as amended in 1932, require that "the local authority shall as part of their procedure make provision for a thorough 'inspection to be carried out from time to time according to the varying needs or 'circumstances of the dwelling houses or localities in the district of the local authority.'" Circular 1331 issued by the Ministry of Health on 6th April, 1933, requires every local authority to submit to the Ministry a housing programme not later than 30th September, 1933. Where the records available are not sufficient for the purpose of framing

such programme, each local authority is requested to put the necessary survey and inspections in hand. For this purpose, every Local Authority requires a competent Sanitary Inspector, or Sanitary Inspectors, who has sufficient time to devote to this phase of the work.

Another new Combined Treatment Centre was opened at Laindon on 10th September, 1932, by the Chairman of the County Council, Alderman H. Burrows.

The Maternity and Child Welfare Service was further strengthened by additional ante-Natal Clinics and Child Welfare Centres, and by an extension of the scheme for ascertaining and treating of children suffering from crippling defects.

In regard to infant life protection, every Health Visitor in the County Council's Child Welfare Area acts as Infant Life Protection Visitor, and makes visits at intervals to the various homes in which foster children are accommodated. Important alterations came into effect on 1st January, 1933, as a result of the Children and Young Persons Act, 1932, namely, the age of children coming within Part I of the provisions of the Children Act, 1908, has been raised from 7 years to 9 years, and foster mothers must give certain specified notices to the local authority prior to receiving foster children.

The agreement with the Essex County Nursing Association has been revised again, the alterations to take effect on 1st April, 1933. Provision is made for assisting affiliated District Nursing Associations to obtain motor cars for District Nurses. Experience has shown that the provision of a small motor car not only enables the District Nurse to carry out her work more expeditiously, but she is also in a position to cover a much wider area. It is noteworthy that out of the 377 parishes in the County, excluding the Extra-Metropolitan Area, 323 are now served by affiliated District Nursing Associations. Close co-operation between the County Council and the Essex County Nursing Association has been maintained, with excellent results, throughout the year.

In November, 1932, a Sub-Committee considered the final report issued by the Departmental Committee of the Ministry of Health on Maternal Mortality and Morbidity. In consequence, the County Council's Child Welfare Scheme was augmented on the lines indicated on pages 48 and 56 of this report.

New arrangements were made during the year for the supply of medicaments including dried milks and cod liver oil and malt) to mothers and patients attending the Tuberculosis Dispensaries, Child Welfare Centres and School Clinics. Supplies are now obtainable at cost price, half price, and free of charge in necessitous cases, from local chemists on the production of a prescription from the appropriate Assistant County Medical Officer. Where a local chemist is not available, supplies are obtainable, as before, at the Tuberculosis Dispensary, Child Welfare Centre, or School Clinic.

A report, dated 1st June, 1932, was received from the Ministry of Health, upon the survey of the County Public Health Services made by one of their Medical Officers during the year 1931. This report has already received, and is still receiving, careful consideration by a Special Sub-Committee.

In June, 1932, the County Council published their first review of County Districts and Parishes with proposals for their re-arrangement in accordance with Section 46 of the Local Government Act, 1929. Special investigations were carried out in many of the County Districts with a view to ascertaining the nature and strength of the public health services provided by the local authorities. A public inquiry was held in Chelmsford by an Inspector from the Ministry of Health on seventeen separate days in October and November, 1932. The Minister of Health has accepted the majority of the County Council's proposals, which have for their object the formation of local government units with sufficient financial support to carry out their duties in a satisfactory manner.

Part IV. of this Report deals with the work carried out in respect to the health side of the work of the Public Assistance Committee. Further steady progress was made, necessitating the submission of special reports on many important matters. With the approval of the Ministry of Health, a new system, based on a card index register similar to that used under the National Health Insurance Act, has been brought into use as from 1st April, 1933, with a view to simplifying and reducing the vast amount of clerical work hitherto required from the District Medical Officers.

I have great pleasure in recording my appreciation of the confidence and support given to me by the Chairmen and Members of the Public Health and Public Assistance Committees. To all the Medical Officers of Health and other officials of the local Sanitary Authorities, to the Medical, Dental, Nursing and Clerical Staffs, my best thanks are due for their efficient services. I am especially indebted to the Deputy County Medical Officer, Dr. T. P. Puddicombe, for his loyalty and support.

W. A. BULLOUGH,  
*County Medical Officer.*

PUBLIC HEALTH DEPARTMENT,  
COUNTY HALL, CHELMSFORD.  
*7th June, 1933.*

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## PUBLIC HEALTH AND HOUSING COMMITTEE.

*Chairman*—Alderman A. M. Mathews.

*Vice-Chairman*—Alderman F. D. Smith.

### ALDERMEN—

A. Brooks, J. H. Burrows, C. W. Daines and A. Porter.

### COUNCILLORS—

R. Adams, Mrs. C. B. Alderton, P. Astins, Lieut.-Col. E. N. Buxton, A. L. Clarke, G. Giller, A. W. Green, H. Compton Guy, R. J. Hunt, Mrs. J. H. Lester, J. C. Mead, Parish, H. F. Pash, W. T. Potts, C. S. Richardson, J. W. Rigby, Dr. J. H. Swanton, J. Wetton, Mrs. B. W. Williams, H. E. Wood, E. G. Wright and E. J. Wythes.

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## MEDICAL AND NURSING SERVICES JOINT SUB-COMMITTEE.

### ALDERMEN—

A. Brooks (*Chairman*), J. H. Burrows, C. W. Daines, E. A. Hibbs, A. M. Mathews, A. Porter and F. D. Smith.

### COUNCILLORS—

Dr. J. H. Swanton, Mrs. B. W. Williams and E. G. Wright.

*Co-opted Members*—Dr. J. P. Atkinson and Mrs. K. M. E. Bell.

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## PUBLIC ASSISTANCE COMMITTEE.

*Chairman*—Alderman Alfred Brooks.

*Vice-Chairman*—Col. Gilbertson Smith, C.A.

Mrs. C. B. Alderton, A. R. Adams, Chas. Asplin, J. E. Ball, G. T. T. Bartram, Bradridge, E. G. Bratchell, Mrs. A. A. F. Brooks, J. H. Burrows, Rev. B. C. Cann, I. C. Carruthers, Mrs. C. C. Chisholm, A. L. Clarke, F. Cock, Mrs. C. Custerson, W. Daines, H. G. J. Foyster, J. R. Furze, A. G. Giller, A. W. Green, F. W. Green, A. Hibbs, W. E. Lane, H. O. Larsen, Mrs. J. H. Lester, Mrs. E. E. Maley, Col. E. Martin, Miss M. L. Mathieson, H. J. Mitchell, E. A. Mundy, T. Philpot, A. Porter, W. Rigby, J. Russell, W. C. Russell, J. T. Sanders, F. G. Seabrooke, A. G. K. Serpell, F. D. Smith, Mrs. H. M. Tabor, H. B. Turner, H. L. Usborne and Mrs. E. M. Wise.

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## MEDICAL OFFICERS OF HEALTH.

The following changes in the list of Medical Officers of Health given in my Annual Report for the year 1931, took place as shown below :—

### Urban Districts—

Wivenhoe	..	Dr. W. H. Alderton appointed in place of Dr. G. T. Kevern, deceased.
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## STAFF.

A detailed list of the Medieal and Health Visiting Staff was set out on pages 14—17 of the Report for the year 1930.

The following alterations and additions were made during 1932 :—

### (1) Medical Staff.

No successor to the late Dr. Archibald Gardiner, First Assistant County Medieal Officer was appointed during the year, but early in 1933 Dr. J. L. Miller Wood (M.R.C.S., L.R.C.P., M.M.S.A., D.P.H.) was appointed and commeneed duty in that capacity on 1st February, 1933.

Dr. J. C. Sleigh resigned in April, 1932, having been appointed from 1st May, 1932, Medieal Officer of Health for the Borough of Chelmsford. By arrangement, he continued to aet as Tuberculosis Officer for the County Couneil. Dr. J. Hatton (M.D., D.P.H.) who eommeneed duty as Junior Assistant County Medieal Offieer in January, 1932, replaeed Dr. Sleigh as Assistant Medieal Offieer at Blaek Notley Sanatorium, and in Ongar Rural District. Dr. E. Miles (M.B., Ch.B., D.P.H.), Combined Medical Officer, Burnham-on-Crouch, was transferred from the Maldon Area as Assistant County Medieal Offieer, and commenced in July, 1932, at the Central Office. Dr. F. G. Brown (B.A., M.B., B.Ch., B.A.O., D.P.H.) was appointed in July, 1932, as Assistant County Medieal Offieer in the Maldon Area.

Dr. C. Ive (M.B., B.S., D.P.H.), eommenced duty in Oetober, 1932, as Assistant Medical Officer of Health and Assistant County Medical Officer in the Orsett Area.

Reference was made last year to the termination of the arrangements with the Barking Borough Council.

In regard to part-time Medieal Praetitioners performing County Council duties during the year, Dr. A. T. Deane replaced Dr. Cunningham, Dr. Garland, the late Dr. Crawford, and Drs. A. Turner and Spencer-Phillips undertook some of the duties hitherto undertaken by Dr. Sarah Boyle. Dr. J. T. Whitley attends an Ante-natal Clinic established by the County Council at Chelmsford.

### (2) Health Visitors.

The following ehanges took place in the health visiting staff for the reasons stated :—

Name.	Qualifications.	Date commenced duty.	District and duties.	Reason for change.
I. G. Hillyer ..	New H.V. Cert. G.N.T. and Cert. Midwife	12-9-32 ..	Burnham-on-Crouch .. (H.V., S.N., T.N.)	Vacancy.
M. A. Shepherd ..	,, , ..	26-9-32 ..	Rayleigh (H.V., S.N., T.N.)	New appointment.

Name.	Qualifications.	Date commenced duty.	District and duties.	Reason for change.
M. Turner ..	G.N.T. and Cert. Mid- wife	1-9-32 ..	Chingford (H.V., part- time)	Probationer H.V.
K. Knight ..	„ „ „	12-9-32 ..	Dagenham (S.N.) ..	New appointment.
B. Stewart ..	New H.V. Cert., G.N.T. and Cert. Midwife	27-9-32 ..	„ (T.N.) ..	Vacancy.
Trounee ..	Bd. of Ed. Cert.	1-4-32 ..	Waltham Holy Cross .. (H.V., S.N., T.N.)	County Council took over Child Welfare work from 1-4-32.
S. Bass ..	R.S.I. Cert. for H.V., 1918, and Cert. Midwife	1-4-32 ..	Chelmsford R.D. (H.V., S.N., T.N.)	„ „ „

N.B.—Misses Jackson and Meachen, hitherto employed jointly by the County Council and the Eden & Winstree Rural District Council, were taken over whole-time by the former when child welfare work was transferred to the County Council on 1st April, 1932.

## PART I.

### ACREAGE AND POPULATION.

The table below gives particulars of the acreage and the estimated populations for the year 1932 which have been used in calculating the birth and death rates, &c., in the Report. The table also shows the number of Municipal Boroughs, Urban and Rural Districts, number of persons per acre, inhabited houses, number of families or separate occupiers, and the rateable value of the County :—

	Area in Acres.		POPULATION.			No. of Persons per acre. (Calculated on 1st Cens. us.).	No. of Acres per person. (Census 1931).	No. of inhabited houses (Census 1931).	No. of families or separate Occupiers (Census 1931).	Rateable value 1st April, 1932.
			Census		Registrar-General's Estimate, 1932.					
	Census 1921.	Census 1931.	1921.	1931.						
Municipal Boroughs (9)	45,754	45,702	468,214	543,389	561,918	11.9	0.08	119,532	140,520	
Urban Districts (28)	97,748	97,948	219,533	375,242	393,782	3.8	0.26	87,575	92,773	
Rural Districts (17)	820,941	819,046	232,394	280,041	286,300	0.3	2.92	73,384	74,595	£7,289,120
	964,443	962,696	920,141	1,198,672	1,242,000	1.2	0.80	280,491	307,888	

A penny rate for Year 1932-33 is estimated to produce £20,078.

### VITAL STATISTICS.

The following table gives the chief vital statistics for the Administrative County of Essex, compared with those for England and Wales for the year 1932, and also for the preceding quinquennial period :—

	Essex.		England and Wales.	
	1928-1932.	1932.	1928-1932.	1932.
Birth-rate per 1,000 population	... ..	16.2	15.4	15.6
Death-rate ,,, ,,,	... ..	10.3	10.1	12.2
Zymotic death-rate per 1,000 population	... ..	0.3	0.3	Not available.
Infant mortality rate per 1,000 births	... ..	50	50	66
				65

### NOTIFICATION OF INFECTIOUS DISEASES.

Table XXIV in Part V. of the Report shows the usual summary of notifications of infectious disease in the various Sanitary Districts during 1932, together with the attack-rate per 1,000 population. Excluding the notifications of tuberculosis, it will be observed that there were 9,343 persons notified as suffering from infectious disease, the attack-rate being 7.5 per 1,000 population, as against 9.5 for 1931.

It will be seen that there was a reduction in the number of notifications of Scarlet fever, Diphtheria, Enteric Fever, &c.

**SMALLPOX.** There was also a reduction in the number of notified cases of smallpox from 195 in 1931 to 68 during the year under review. No deaths from this disease were reported.

### VACCINATION ORDER, 1930.

The following table gives particulars of the number of primary and re-vaccinations carried out by Public Vaccinators in the Administrative County of Essex during the year ended 30th September, 1932 :—

Successful primary vaccinations under one year of age	..	4,635
Successful primary vaccinations one year and upwards	..	819
Total	..	5,454

This is equal to 28.5 per cent. of the infants born.

Successful re-vaccinations	..	..	..	479
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### ISOLATION HOSPITALS.

Table II on page 12a gives the usual particulars of the accommodation, number of cases treated, cost per bed, &c., at those Hospitals to which grants are made for beds provided out of loan (£5 per bed). A grant of £10 per annum is also paid for each hospital at which a motor ambulance is provided.

In addition the County Council paid grants at the rate of £2 10s. per bed to the following Isolation Hospitals for beds provided out of revenue :—

Colchester (40), Dunmow (4), Halstead (4), Orsett (48).

During the year the Ministry of Health held a public inquiry into allegations respecting the treatment of patients in the Isolation Hospital belonging to the Waltham Abingdon Hospital Board.

### VENEREAL DISEASES.

Table I on page 12 gives particulars of the number of new patients from Essex treated at the various clinics, as well as the total number of attendances of all Essex patients. Details of the arrangements made under the London & Home Counties V.D. Scheme and the facilities for advice and treatment at the Chelmsford, Colchester, Southend and Ipswich Hospitals, as well as at the Gravesend *ad hoc* clinic, have been set out in previous reports.

### LOCAL GOVERNMENT ACT, 1929.

Consideration of reports under Sections 58 and 63 of the Local Government Act, 1929, has been postponed pending the decision of the Ministry of Health in regard to the revision of Sanitary Districts under Section 46 of the Act.

Further applications have been received from Local Authorities under Section 57 for assistance in connection with works of water supply, sewage disposal, &c. These are receiving consideration by a Special Sub-Committee.

TABLE I.  
TREATMENT OF VENEREAL DISEASE, YEAR 1932.

Treatment Centre.		ESSEX PATIENTS.						Number of doses of Arseno-Benzine Com- pounds given in Out- patient Clinic and In-patient Depart- ment.	Hostels.	
Patients from all Areas.	Total No. treated for first time.	Total Number treated for first time suffering from				Total No. of Atten- dances of Essex Patients.	In- patient Days.	3505	2173	
		Syphilis.	Soft Chancre.	Gonorr- hea.	Not V.D.					
London Hospitals	27,952	165	8	542	559	1,278	44,667	1824		
St. Bartholomew's, London	981	5	—	13	8	26	553	—	62	—
Chelmsford	24	11	—	11	2	24	491	—	56	—
Colchester	142	59	1	51	26	137	2935	446	562	—
Ipswich	206	5	—	2	6	13	116	18	54	—
Southend	366	10	—	39	38	87	1311	—	62	—
Gravesend	264	15	4	35	20	74	3371	—	387	—
Total for 1932...	29,935	274	13	693	659	1,639	63,444	2,958	4,688	2,173
Total for 1931...	27,970	281	30	580	564	1,455	45,007	2,245	4,949	2,416
" 1930..."	29,086	322	20	503	543	1,388	33,614	1,311	3,429	2,601
" 1929..."	26,516	315	14	466	434	1,229	28,523	1,632	2,817	2,292
" 1928..."	27,576	259	12	505	425	1,201	25,880	2,831	2,491	2,373
" 1927..."	30,466	276	6	550	488	1,320	21,756	3,739	2,781	2,579

TABLE II.

Showing Accommodation, Number of Cases treated, Cost per Bed, etc., at those Isolation Hospitals for which Grants for Beds provided out of Loan were recommended for the Year ended 31st March, 1932.

	Billericay.	Chelmsford.	Clacton.	Colchester.	Dunmow.	Grays and Orsett.	Halstead.	Ilford.	Maldon.	Rochford.	Romford.	Saffron Walden.	Walthamstow.	Waltham Joint.	TOTAL.
Number for purpose of Grant	30	21	17	58	8	40	16	110	10	12	141	14	91	42	
Grant from County Council	£160	£115	£85	£300	£50	£210	£90	£560	£60	£70	£715	£80	£465	£220	£3180
<i>Cases treated during year:—</i>															
Scarlet Fever	141	145	19	208	31	90	9	176	41	67	312	16	345	169	1769
Diphtheria	54	22	7	69	7	92	3	133	11	64	192	3	302	46	1005
Typhoid	3	1	2	3	..	2	..	..	4	4	3	—	13	2	37
Other Diseases	18	20	2	*134	..	34	1	*106	..	7	59	3	*98	—	482
Total number of cases treated	216	‡188	30	414	38	‡218	13	415	56	‡142	566	22	758	217	3293
Bed-Days	5247	7393	1183	20614	1330	7985	499	17510	1765	5930	22589	840	28336	9773	130994
<i>Expenditure for the year:—</i>															
Repayment of Loans...	214 5 8	251 8 2	75 18 9	154 9 9	16 14 0	1554 11 9	64 0 0	1732 5 11	274 11 4	51 14 8	1608 0 0	108 0 0	424 0 0	456 13 4	6986 13 4
Interest on loan	207 11 4	49 0 7	7 17 3	112 16 3	1 5 0	841 15 9	41 11 7	1707 13 0	30 15 10	18 16 3	3782 10 6	57 8 0	387 0 0	33 16 6	7279 17 10
Total	£ 421 17 0	300 8 9	83 16 0	267 6 0	17 19 0	2396 7 6	105 11 7	3439 18 11	305 7 2	70 10 11	5390 10 6	165 8 0	811 0 0	490 9 10	14266 11 2
Structural Repairs	291 16 6	80 0 0	61 6 8	24 1 4	5 10 6	775 14 4	81 3 9	610 19 4	106 13 2	128 13 7	—	57 8 6	769 0 0	49 10 11	3041 18 7
Food (Patients and Staff)	1312 8 5	782 16 11	186 10 5	1158 15 0	196 10 9	1423 19 8	121 6 1	3040 1 0	493 10 2	625 4 10	4224 14 0	157 9 8	4487 0 0	594 11 11	18804 17 10
Estab. and Patients' Expenses	1858 15 6½	1584 14 0	706 16 8	6148 2 2	678 5 11	7263 14 8	861 1 7	12797 14 8	1310 3 11	1257 9 4	18320 8 7	461 4 11	12216 0 0	3871 2 1	69335 14 0
Maintenance...	3463 0 5½	2447 10 11	954 13 9	7330 18 6	880 7 2	9463 7 8	1063 11 5	16448 15 0	1910 7 3	2011 7 9	22545 2 7	676 3 1	17472 0 0	1515 4 11	91182 10 5
Overhead Charges	421 17 0	300 8 9	83 16 0	267 6 0	17 19 0	2396 7 6	105 11 7	3439 18 11	305 7 2	70 10 11	5390 10 6	165 8 0	811 0 0	496 9 10	14266 11 2
Total	£ 3884 17 5½	‡2747 19 8	1038 9 9	7598 4 6	898 6 2	‡11859 15 2	1169 3 0	19888 13 11	2215 14 5	2081 13 8‡	27035 13 1	841 11 1	18283 0 0	5005 14 9	105449 1 7
Cost per patient per week	£ 5 3 8	2 12 0	6 2 11	2 11 7	4 14 6	10 7 11	16 8 0	7 19 0	8 15 9	2 9 2	8 13 2	7 0 3	4 10 4	3 11 8	5 12 8
" " Food, Struct. and Estab. Ex.	£ 4 12 5	2 6 4	5 13 0	2 9 9	4 12 7	8 5 11	14 18 4	6 11 6	7 11 6	2 7 6	6 19 9	5 12 8	4 6 4	3 4 8	4 17 5
Cost per case treated, 1931-32	£ 17 19 8	14 12 4	34 12 4	18 7 1	23 12 9	54 8 1	89 18 8	47 18 6	39 11 4	14 13 3	49 7 1	38 5 2	24 2 5	23 1 4	32 0 5
" " year 1930-31 £	16 2 3	10 6 0	29 9 9	15 12 5	21 8 9	37 8 1	29 9 5	45 3 0	34 14 3	16 17 0	21 17 11	21 12 7	19 17 7	16 4 5	22 19 8

\* Includes Tuberculosis cases treated under the County Council scheme.

†Includes Small-pox patients.



## EXAMINATION OF BACTERIOLOGICAL SPECIMENS.

A table showing the number and type of specimens examined by Dr. J. F. Beale, bacteriologist for Essex (91, Queen Victoria Street, London, E.C.4 ; Tel. No. City 7116) under arrangements made by the Public Health and Housing Committee is given on page 14. It will be noted that the total number was 15,223, or 7,402 less than for the year 1931.

This is mainly accounted for by a decrease in the number of diphtheria swabs (106) due to the suggestion made to certain Medical Officers of Health in regard to the swabbing of patients prior to discharge from Isolation Hospitals. Moreover, there were 627 fewer typhoid specimens examined than in 1931, when the outbreak of paratyphoid fever in the Epping Urban District occurred.

In addition to the examination of bacteriological specimens, Dr. Beale also undertakes the following work for the County Council :—

- (i) Examination of samples of river water and sewage effluents.
- (ii) Examination of samples of potable water.
- (iii) The preparation of autogenous vaccines.
- (iv) Animal inoculations for virulence tests.
- (v) Biological examinations of milk samples.

Dr. Beale has kindly supplied the following particulars of the work carried out during the year.

The specimens examined during 1932 are divided into two groups—

(1) *Public Health Specimens*, i.e., those received from Medical Practitioners, Isolation Hospitals and Sanatoria, and Medical Officers of Health in the Administrative County, and

(2) *Public Assistance Specimens*, i.e., those received from Public Assistance Institutions.

### ) PUBLIC HEALTH SPECIMENS.

The total number of specimens of this group examined during 1932 was 15,252 (including 29 biological examinations). This number does not include samples of milk examined biologically, samples of water examined chemically and bacteriologically, and samples of sewage, sewage effluents, and trade wastes submitted to chemical analysis. The distribution and nature of this number is shown in Table III on page 14.

*Diphtheria.*

Of the 7,878 swabs examined, 696 gave positive results and 7,182 negative results. The large proportion of negative results is accounted for by the swabbing of contacts of all children before admission to sanatoria and other institutions, and of patients recovering from Diphtheria before discharge from isolation hospitals.

In 27 cases, owing to the persistence of Diphtheria Bacilli in the throats of apparently healthy persons, animal inoculation tests for Virulence were carried out. Of these, 10 proved virulent and 17 non-virulent.

All swabs are reported on cultural examination, but direct examination is also made when requested, and in certain other instances. Many swabs are also examined for the organisms of Vincent's angina, Streptococci, Thrush fungus, &c.

TABLE III.

SHEWING NUMBER AND TYPE OF SPECIMENS EXAMINED BY THE  
BACTERIOLOGIST FOR ESSEX—YEAR 1932.

SANITARY DISTRICTS.	Diphtheria.	Sputa.	Typhoid	Ring-worm.	Miscellaneous.	Total Specimens examined.	† Biological Examinations.
<b>URBAN—</b>							
Barking B.	...	1222	264	59	2	20	1567
Benfleet	...	229	21	14	...	6	270
Braintree	...	38	78	6	...	14	136
Brentwood	...	74	35	4	...	12	125
Brightlingssea	...	21	10	2	...	3	16
Buckhurst Hill	...	16	6	1	...	...	23
Burnham-on-Crouch	...	2	7	...	...	...	9
Canvey Island	...	27	14	1	...	...	42
Chelmsford B.	...	132	386	8	13	19	258
Chingford	...	129	228	11	1	20	302
Clacton-on-Sea	...	35	60	4	1	...	100
Colchester B.	...	4	104	21	...	...	229
Dagenham	...	361	317	3	56	6	743
Epping	...	82	26	5	3	10	126
Frinton-on-Sea	...	2	1	...	...	1	4
Grays	...	220	107	9	...	4	340
Halstead	...	27	39	4	...	8	78
Harwich B.	...	76	42	3	2	...	123
Hornchurch	...	35	31	1	1	4	72
Ilford B.	...	236	458	32	3	37	766
Leyton B.	...	1515	743	5	10	20	2293
Loughton	...	2	9	...	...	...	11
Maldon B.	...	30	39	3	...	1	73
Purfleet	...	42	22	2	...	...	64
Rayleigh	...	20	10	2	4	1	37
Romford	...	201	179	19	3	42	444
Saffron Walden B.	...	47	7	...	1	1	56
Shoeburyness	...	26	28	1	4	1	60
Tilbury	...	246	88	2	11	1	348
Waltham Holy Cross	...	313	31	3	2	21	370
Walthamstow B.	...	101	703	36	24	27	891
Walton-on-the-Naze	...	29	5	...	...	...	34
Wanstead	...	...	45	...	...	1	46
West Mersea	...	4	4	...	...	18	26
Witham	...	16	28	...	...	5	49
Wivenhoe	...	2	...	...	...	...	2
Woodford	...	163	125	3	...	4	295
Total	...	5725	4100	265	141	307	10538
<b>RURAL—</b>							
Belchamp	...	3	3	...	...	...	6
Billericay	...	362	305	7	2	13	689
Braintree	...	202	147	7	3	171	530
Bumpstead	...	5	2	...	1	...	12
Chelmsford	...	62	50	2	13	51	181
Dunmow	...	82	36	7	5	40	170
Epping	...	116	60	7	9	3	195
Halstead	...	22	26	6	3	4	61
Lexden & Winstree	...	14	16	1	1	14	46
Maldon	...	96	39	5	14	4	158
Ongar	...	38	12	...	3	11	64
Orsett	...	693	41	5	3	3	745
Rochford	...	317	32	1	2	9	361
Romford	...	48	1251	3	2	10	1314
Saffron Walden	...	30	13	...	...	1	44
Stansted	...	12	13	...	5	1	31
Tendring	...	47	23	2	3	3	78
Totals—	Rural	2153	2069	53	69	341	4685
	Urban	5725	4100	265	141	307	10538
Adminis. County	...	7878	616	318	210	648	15223

† Includes specimens taken at Isolation Hospital in District.

‡ Sanatorium or Dispensary in District.

†† This does not include the Biological Examination of milk samples (see page 22).

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Of 6,169 specimens of sputum, 1,841 proved positive for Tubercle Bacilli, and 28 negative. All specimens are examined by the sedimentation method before a negative result is given.

Five specimens of sputum were examined for asbestosis bodies which were present two instances.

The miscellaneous specimens given in Table III include many specimens of urine, sputum, pleural fluids, joint fluids, cerebro-spinal fluids, &c., which also were examined for Tubercle Bacilli.

The examination of specimens of sputum often includes, by request, other observations, such as examination for elastic tissue, blastomycetes, pneumococci or other bacteria. Cultural examination is therefore frequently performed.

In addition, two specimens were biologically examined for the presence of tubercle bacilli. The results being one positive and one negative.

#### *Enteric Fever.*

During the year 318 specimens of blood were submitted to examination, Widal's agglutination reaction being applied. All specimens are tested against both *B. typhosus* and *paratyphosus B.*, and in some cases also against *B. paratyphosus A.* Infection by the latter is exceedingly rare in this country, and hence testing against this organism generally be omitted without sensible loss.

There has been no outbreak of Enteric Fever during the year, but a few cases of typhoid Fever occurred amongst bathers in the River Roding, the water of which gives much sewage effluent, and was found to contain typhoid bacilli. The use of Wilson & Blair's media appears to facilitate the isolation of typhoid-paratyphoid bacilli from sewage effluents, water, &c.

#### *Dysentery.*

A small outbreak of dysentery occurred in one of the Metropolitan areas of the country and 22 specimens of faeces were examined. *B. dysenteriae* of Flexner type proved to be the infecting organism.

#### *Food Poisoning.*

There have been no outbreaks of food poisoning throughout the year, but a few cases of mild transient illness were thought to be due to the consumption of oysters. Microbiological examination of the oysters shewed them to be clean, and gave negative results for salmonella organisms.

#### *Miscellaneous Specimens.*

The 648 miscellaneous specimens included the following :—

Blood ..	63 specimens, including agglutination reactions, differential count, cultural examination, blood sugar estimation, &c
Urine ..	153 specimens, including chemical, microscopical and cultural examinations, &c.
Faeces ..	176 specimens, including examination for bacteria of the typhoid, para-typhoid, and dysentery groups, &c.
Pus ..	74 specimens were examined for tubercle bacilli, and other bacteria.

### *Cerebro-Spinal Fluids.*

28 specimens were submitted to cytological and chemical examination, microscopical examination for Tubercle Bacilli and other bacteria, and cultural examination. Tubercle Bacilli were found in five specimens and Meningococci in five specimens.

### *Fluids from Pleural Cavities, Joints, &c.*

37 specimens were received for cytological examination, microscopical search for Tubercle Bacilli and cultural examination for other bacteria. Tubercle Bacilli were found in one specimen.

### *Puerperal Fever.*

41 specimens. The specimens examined in this connection included 23 swabs of uterine discharge, examined for bacteria by microscopical and cultural methods.

18 nose and throat swabs from attendant nurses and others were also examined for streptococci.

### *Venereal Diseases.*

Specimens in connection with venereal diseases are examined by special arrangement at the Hospitals included in the London and Home Counties V.D. scheme.

Four specimens of eye discharge from cases of Ophthalmia Neonatorum were, however, examined bacteriologically.

### *Milk Examinations.*

(a) 169 specimens of milk were examined for dirt in suspension, microscopically for Tubercle Bacilli, Red Blood Corpuscles and Pus, and culturally for Colon Bacilli.

(b) 516 samples were submitted to animal inoculation test for Tubercle Bacilli, and 35 proved positive.

Specimens of Graded Milk are examined at the East Anglian Institute of Agriculture, Chelmsford.

### *Analyses of Water, Sewage Effluents, &c.*

During the year 23 samples of potable water were submitted to chemical analysis and bacteriological examination, and two samples of river water were examined, chemically.

In addition, chemical analysis was carried out on 120 samples of sewage effluents and trade wastes.

## (2) SPECIMENS FROM PUBLIC ASSISTANCE INSTITUTIONS.

The number of specimens in this group, examined during 1932, was 890. Their nature and the extent of the examinations required differ considerably from those falling under Group (1) and which can be described as Public Health specimens. They embrace not only bacteriology, but also chemical pathology and histology.

The specimens include :—

*Blood*—176 specimens made up as follows :—

69 for estimation of blood urea.

20 for estimation of blood sugar.

24 for blood-counts, &c.

17 for blood cultures.

44 for agglutination reaction of typhoid-paratyphoid Group.

2 for agglutination reaction of typhoid-paratyphoid Group and dysenter and melitensis groups.

*ssues for Section and Histological Examination*—51 specimens.

*rine*—186 specimens, comprising the following examinations :—

- 4 for microscopical examination of deposit only.
- 10 for chemical and microscopical examination and search for Tubercle Bacilli.
- 32 for microscopical examination, search for Tubercle Bacilli and cultural examination for other bacteria, including eight for special cultivation for typhoid-paratyphoid bacilli.
- 138 for chemical analysis, microscopical examination of deposit, search for Tubercle Bacilli, and cultural examination for other bacteria.
- 1 for estimation of lead, in addition to general examination.
- 1 for animal inoculation test for Tubercle Bacilli.

*ieces*—35 specimens, as below :—

- 29 for microscopical examination and cultural examination for bacteria of the typhoid-paratyphoid and dysentery groups.
- 3 for microscopical examination and search for Tubercle Bacilli.
- 3 for examination for Occult blood.

*Bodily Fluids*—131 specimens.

70 specimens of cerebro-spinal fluids were examined, and 60 of these included chemical and cytological examination, microscopical examination for Tubercle Bacilli, and cultural examination for bacteria.

In the remaining 10 specimens, additional examinations were required, as follows :—

- 4 for urea, sugar and chlorides estimation.
- 6 for Wassermann reaction.

32 specimens of Pleural Fluids for microscopical and cytological examination, search for Tubercle Bacilli and cultural examination for other bacteria. Fluids from joints, cysts, &c., for examination as under (b) plus chemical examination in several instances.

*urta.*

55 specimens were examined by the concentration method for Tubercle Bacilli, and in a number of cases general bacteriological and cultural examinations were also carried out.

An autogenous vaccine was prepared in one instance.

*omach Contents.*

17 specimens were examined for total acidity, free hydrochloric acid, and pathological constituents.

*abs*—213 were examined, of which

181 were examined for Diphtheria Bacilli only.

4 were examined for Diphtheria Bacilli and general microscopical and cultural examination in addition.

28 were uterine swabs from cases of Puerperal Sepsis for general bacteriological examination.

One animal inoculation test for Virulence of Diphtheria Bacilli was performed.

*Pus.*

22 specimens of Pus were submitted to microscopical examination, search for Tubercl Bacilli and cultural examination for other bacteria.

**CONCLUSION.**

A great part of the value of laboratory examinations is often lost by faulty selection and collection of specimens.

Inadequacy in the information regarding the history of the patient and other details with regard to specimens frequently handicaps the laboratory in the interpretation of results.

Application for sera, vaccines, &c., is frequently made, but these are not stocked by the laboratory. The applicants are therefore referred elsewhere.

(Sd.) JOHN F. BEALE.

**HOUSING.**

Table IV on page 18a gives particulars of the work carried out under the Public Health and Housing Acts by the Local Sanitary Authorities during the year 1932. The principal items included in that table are compared below with the figures for the year 1931 :—

		1931.	1932.
No. of new houses erected .. . . .	..	9,222	11,989
No. of houses inspected for housing defects .. . .	..	29,448	29,797
No. of inspections made for the purpose .. . .	..	78,922	78,912
No. of houses found to be totally unfit for human habitation .. . . .	..	523	522
No. of houses found to be partially unfit for human habitation .. . . .	..	13,843	13,129
No. of houses rendered fit in consequence of informal action .. . . .	..	12,792	12,216

On 11th August, 1932, the Ministry of Health issued the Housing Consolidated Amendment Regulations, 1932, which amended Part IV. of the Housing Consolidated Regulations, 1925.

**RURAL DISTRICT COUNCILS.** As required by the Housing Act, 1930, each Rural District Council furnished their second return (for the year 1931) in regard to housing conditions of persons of the working classes. These returns, which were summarised by the Clerk of the County Council (see Table V on page 18b) were submitted to the Sanitary and Health Sub-Committee along with a report by the County Medical Officer. Reports were also submitted to the same Sub-Committee on special investigations carried out in three Rural Districts, resulting in appropriate representations being made to the Rural District Councils concerned regarding the need for further housing inspections, and/or for the provision of new houses.

Pressure of other duties prevented further special investigations being undertaken during the year. The third return from each Rural District Council (for the year 1932) is now being received.

TABLE IV.  
SHOWING PARTICULARS OF WORK CARRIED OUT BY LOCAL SANITARY AUTHORITIES UNDER THE PUBLIC HEALTH AND HOUSING ACTS  
DURING THE YEAR 1932.

SANITARY DISTRICT.	NEW HOUSES ERECTED DURING 1932			INSPECTION OF DWELLING HOUSES DURING THE YEAR.							ACTION UNDER STATUTORY POWERS.															
	By			(a)	(b)	(c)	(d)	(e)	(f)	No. of defective Dwelling Houses rendered fit in consequence of informal action by the Local Authority or their Officers,	PROCEEDINGS UNDER SECTIONS 17, 18 AND 23 OF THE HOUSING ACT, 1930.			PROCEEDINGS UNDER PUBLIC HEALTH ACTS.			PROCEEDINGS UNDER SECTIONS 19 & 21 OF HOUSING ACT, 1930.		PROCEEDINGS UNDER SECTION 20 OF HOUSING ACT, 1930.		PROCEEDINGS UNDER SECTION 3 OF HOUSING ACT, 1925.			PROCEEDINGS UNDER SECTIONS 11, 14 & 15 OF HOUSING ACT, 1925.		
	Total.	The Local Authority	Other Local Authorities	Other Bodies or Persons.	No. of Inspected for Housing Defects under Public Health or Housing Acts.	No. of Inspections made for the purpose.	No. of Dwelling Houses (included under sub-head (a)) which were inspected and recorded under Housing Consolidated Amendment Regs., 1932.	No. of Inspections made for the purpose.	No. found to be in a state so dangerous or injurious to health as to be unfit for human habitation.	No. (excluding those referred to under (e)) found not to be in all respects reasonably fit for human habitation.	No. of Dwelling Houses in respect of which Notices were served requiring Repairs.	No. of Dwelling Houses which were rendered fit after service of formal Notices.	No. of Dwelling Houses in respect of which Notices were served requiring defects to be remedied.	No. of Dwelling Houses which defects were remedied after service of formal Notice.	No. of Dwelling Houses in respect of which Demolition Orders were made.	No. of Dwelling Houses demolished in pursuance of Demolition Orders.	No. of separate Tenements or Underground Rooms in respect of which Closing Orders were determined, the Tenement or Room having been rendered fit.	No. of Dwelling Houses in respect of which Closing Orders became operative in pursuance of declaration by owners of intention to close.	No. of Dwelling Houses in respect of which Closing Orders were rendered fit after service of formal Notices.	No. of Dwelling Houses in respect of which Closing Orders became operative.	No. of Dwelling Houses in respect of which Demolition Orders become operative.	No. of Dwelling Houses in respect of which Demolition Orders were rendered fit.				
URBAN.																										
BARKING B.	1993	109	1707	177	3155	10396	925	1075	158	2376	1776	216	214	2	384	357	27	15	..	1	..	..	..	..		
BENFEET	106	..	..	106	79	87	36	42	4	43	34	..	..	..	10	13	..	..	..	..	..	..	..	..		
BRAINTREE	86	26	..	57	703	965	40	140	..	20	132	2	2	..	..	..	..	..	..	..	..	..	..	..		
BRENTWOOD	8	..	..	8	203	685	..	..	..	85	95	..	..	..	..	..	..	..	..	..	..	..	..	..		
BRIGHTLINGSEA	12	..	..	12	49	49	9	9	..	27	33	..	..	..	..	..	..	..	..	..	..	..	..	..		
BUCKHURST HILL	54	..	..	54	80	240	30	175	..	50	50	..	..	..	..	..	..	..	..	..	..	..	..	..		
BURNHAM-ON-CROUCH	7	..	..	7	275	200	275	200	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
CANVEY ISLAND	155	..	..	155	26	71	..	..	..	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
CHELMSFORD B.	140	4	..	136	1406	1791	108	193	4	134	128	..	..	..	5	5	..	..	..	..	..	..	..	..		
CHINGFORD	543	40	..	503	559	1072	..	..	..	..	124	..	..	9	..	..	..	..	..	..	..	..	..	..		
CLACTON-ON-SEA	172	..	..	172	206	596	38	94	3	185	110	..	..	..	13	13	..	..	..	..	..	..	..	..		
COLCHESTER B.	363	102	..	261	782	4307	76	1616	8	637	540	19	16	..	36	24	3	2	1	..	..	..	..	1		
DAGENHAM	683	137	..	546	2147	5097	1523	3667	17	564	299	60	38	..	57	59	4	25	31	..	..	..	..	..		
EPPING	40	30	..	10	51	134	32	53	2	28	20	6	6	..	15	15	..	19	8	..	..	..	..	..		
Frinton-on-Sea	10	..	..	10	23	29	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
GRAYS	108	12	..	96	606	1818	201	201	..	405	404	..	..	..	..	..	..	..	..	..	..	..	..	..		
HALSTEAD	6	..	..	6	415	979	42	42	..	373	198	177	166	2	..	..	..	..	..	..	..	..	..	..		
HARWICH B.	79	46	..	33	82	237	..	..	..	..	43	1	..	..	..	..	..	..	..	..	..	..	..	..		
HORNCHURCH	1153	22	..	1131	413	1276	78	271	5	112	96	..	..	..	13	6	..	9	7	..	..	..	..	..		
ILFORD B.	1267	..	..	1267	1379	3184	392	1487	19	538	536	222	200	..	..	..	4	4	..	14	5	..	..	..		
LEYTON B.	127	..	..	127	2793	9761	819	2555	13	1557	1684	..	..	..	..	..	..	..	..	..	..	..	..	..		
LOUGHTON	82	..	..	82	151	362	22	83	..	21	26	..	..	..	..	..	..	..	..	..	..	..	..	..		
MALDON B.	9	..	..	9	250	372	224	290	3	19	21	22	17	..	..	..	..	..	..	..	..	..	..	..		
PUREFLEET	62	16	..	46	342	941	234	234	8	121	118	6	3	..	1	..	..	..	..	..	..	..	..	..		
RAYLEIGH	122	..	..	122	22	34	..	..	2	12	4	..	..	..	2	2	..	..	..	..	..	..	..	..		
ROMFORD	775	..	..	775	671	1534	437	650	1	878	767	..	..	..	10	10	..	..	..	..	..	..	..	..		
SAFFRON WALDEN B.	26	..	..	26	268	297	58	71	2	58	76	184	184	..	67	62	..	..	..	..	..	..	..	..		
SHOEBURYNESS	69	..	..	69	138	267	19	44	..	103	92	..	..	..	9	9	..	..	..	..	..	..	..	..		
TILBURY	1	..	..	1	754	2000	358	758	1	507	279	56	30	1	172	151	..	..	..	..	..	..	..	..		
WALTHAM HOLY CROSS	19	..	..	19	258	415	114	211	1	159	138	6	6	..	13	8	..	..	..	..	..	..	..	..		
WALTHAMSTOW B.	642	144	..	498	4030	15469	1186	4524	1	1968	2692	124	95	7	8	6	2	1	1	..	..	..	..	..		
WALTON-ON-THE-NAZE	9	..	..	9	24	33	17	23	1	15	15	..	..	..	..	..	..	..	..	..	..	..	..	..		
WANSTEAD	84	..	..	84	409	1295	75	139	..	75	115	..	..	..	4	4	..	..	..	..	..	..	..	..		
WEST MERSEA	12	..	..	12	58	80	58	80	6	34	19	..	..	..	4	4	..	..	..	..	..	..	..	..		
WITHAM	31	..	..	31	70	..	36	..	..	18	8	..	..	..												



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SHOWING PARTICULARS OF WORK CARRIED OUT BY LOCAL SANITARY AUTHORITIES UNDER THE PUBLIC HEALTH AND HOUSING ACTS  
DURING THE YEAR 1932.

SANITARY DISTRICT.	NEW HOUSES ERECTED DURING 1932.				INSPECTION OF DWELLING HOUSES DURING THE YEAR.										ACTION UNDER STATUTORY POWERS.														
	Total.	By			(a)	(b)	(c)	(d)	(e)	(f)	No. of defective Dwelling Houses rendered fit in consequence of informal action by the Local Authority or their Officers.	PROCEEDINGS UNDER SECTIONS 17, 18 AND 23 OF THE HOUSING ACT, 1930.			PROCEEDINGS UNDER PUBLIC HEALTH ACTS.			PROCEEDINGS UNDER SECTIONS 19 & 21 OF HOUSING ACT, 1930.			PROCEEDINGS UNDER SECTION 20 OF HOUSING ACT, 1930.			PROCEEDINGS UNDER SECTION 3 OF HOUSING ACT, 1925.			PROCEEDINGS UNDER SECTIONS 11, 14 & 15 OF HOUSING ACT, 1925.		
		The Local Authority	Other Local Authorities	Other Bodies or Persons.	Total No. inspected for Housing Defects under Public Health or Housing Acts.	No. of Inspections made for the purpose.	No. of Dwelling Houses included under sub-head (a)) which were inspected and recorded under Housing Consolidated Amendment Regs., 1932.	No. of Inspections made for the purpose.	No. found to be in a state so dangerous or injurious to health as to be unfit for human habitation.	No. (excluding those referred to under (e)) found to be in all respects reasonably fit for human habitation.	No. of Dwelling Houses in respect of which Notices were served requiring Repairs.	No. of Dwelling Houses which were rendered fit after service of formal Notices.	No. of Owners.	No. of Local Authority in default of Owners.	No. of Dwelling Houses in respect of which Notices were served requiring defects to be remedied.	No. of Owners.	No. of Local Authority in default of Owners.	No. of Dwelling Houses in respect of which Demolition Orders were made.	No. of separate Tenements or Underground Rooms in respect of which Closing Orders were determined, the Tenement or Room having been rendered fit.	No. of Dwelling Houses rendered fit after service of formal Notices.	No. of Owners.	No. of Local Authority in default of Owners.	No. of Dwelling Houses in respect of which Closing Orders became operative in pursuance of declaration by owners of intention to close.	No. of Dwelling Houses in respect of which Closing Orders were determined.	No. of Dwelling Houses in respect of which Demolition Orders became operative.	No. of Dwelling Houses demolished in pursuance of Demolition Orders.			
URBAN.																													
BARKING B.	1993	109	1707	177	3155	10396	925	1075	158	2376	1776	216	214	2	384	357	27	15	..	1	..	..	..	..	..	..			
BENFLEET	106	..	..	106	79	87	36	42	4	43	34	..	..	..	10	13	..	..	..	..	..	..	..	..	..	..			
BRAINTREE	86	26	..	57	703	965	40	140	..	20	132	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..			
BRENTWOOD	8	..	..	8	263	685	..	..	..	85	85	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
BRIGHTLINGSEA	12	..	..	12	49	49	9	9	..	27	33	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
BUCKHURST HILL	54	..	..	54	80	240	30	175	..	50	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
BURNHAM-ON-CROUCH	7	..	..	7	275	200	275	200	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
CANVEY ISLAND	155	..	..	155	26	71	..	..	..	..	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
CHELMSFORD B.	140	4	..	136	1406	1791	108	193	4	134	128	..	4	..	221	205	..	..	..	..	..	..	..	..	..	..			
CHINGFORD	543	40	..	503	559	1072	..	..	..	..	124	..	9	..	..	13	13	..	..	..	..	..	..	..	..	..			
CLACTON-ON-SEA	172	..	..	172	206	596	38	94	3	185	110	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
COLCHESTER B.	303	102	..	261	782	4307	76	1616	8	637	540	19	16	..	..	36	24	3	2	1	..	..	..	..	..	1			
DAGENHAM	683	137	..	546	2147	5097	1523	3667	17	564	299	60	38	..	386	304	..	15	19	8	..	..	..	..	..	..			
EPPING	40	30	..	10	51	134	32	53	2	28	20	6	..	..	..	..	..	..	..	..	..	..	..	..	1				
FRENTON-ON-SEA	10	..	..	10	23	29	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
GRAYS	108	12	..	96	606	1818	201	201	..	405	404	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..			
HALSTEAD	6	..	..	6	415	979	42	42	..	373	198	177	166	2	..	..	..	..	..	..	..	..	..	..	..	..			
HARWICH B.	79	46	..	33	82	237	..	..	..	..	43	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
HORNCHURCH	1153	22	..	1131	413	1276	78	271	5	112	96	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
ILFORD B.	1267	..	..	1267	1379	3184	392	1487	19	538	536	222	200	..	..	13	6	..	..	..	..	..	..	..	..	..			
LEYTON B.	127	..	..	127	2793	9761	819	2555	13	1557	1684	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
LOUGHTON	82	..	..	82	151	362	22	83	..	21	26	8	8	..	..	..	..	..	..	..	..	..	..	..	..	..			
MALDON B.	9	..	..	9	250	372	224	290	3	19	21	22	17	..	..	..	..	..	..	..	..	..	..	..	..	..			
PURFLEET	62	16	..	46	342	941	234	234	8	121	118	6	3	..	..	..	..	..	..	..	..	..	..	..	..	..			
RAYLEIGH	122	..	..	122	22	34	..	..	2	12	4	..	4	..	..	10	10	..	..	..	..	..	..	..	..	..			
ROMFORD	775	..	..	775	671	1534	437	650	1	878	767	..	..	..	..	..	..	..	..	..	..	..	..	..	..				
SAFFRON WALDEN B.	26	..	..	26	268	297	58	71	2	58	76	184	184	..	..	..	..	..	..	..	..	..	..	..	..	..			
SHOEBURYNESS	69	..	..	69	138	267	19	44	..	103	92	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..			
TILBURY	1	..	..	1	754	2000	358	758	1	507	279	56	30	1	172	151	..	..	..	..	..	..	..	..	..	..			
WALTHAM HOLY CROSS	19	..	..	19	258	415	114	211	1	159	138	6	6	..	..	..	..	..	..	..	..	..	..	..	..	..			
WALTHAMSTOW B.	642	144	..	498	4030	15469	1186	4524	1	1968	2692	124	95	7	..	..	..	..	..	..	..	..	..	..	..	..			
WALTON-ON-THE-NAZE	9	..	..	9	24	33	17	23	1	15	15	..	..																



### TOWN PLANNING.

TOWN AND COUNTRY PLANNING ACT, 1932. Section 58 of this Act indicates that the Act shall come into operation on 1st April, 1933. It is an Act to authorise the making of schemes with respect to the development and planning of land, whether urban or rural, and in that connection to repeal and re-enact with amendments the enactments relating to town planning ; to provide for the protection of rural amenities and the preservation of buildings and other objects of interest and beauty ; to facilitate the acquisition of land for garden cities ; and to make other provision in connection with the matters aforesaid.

WEST ESSEX ADVISORY JOINT TOWN PLANNING COMMITTEE. The County Council agreed to make a contribution of 25 per cent. towards the expenses of the West Essex Advisory Joint Town Planning Committee not exceeding the sum of £250.

NORTH-EAST ESSEX. The County Council entered into an agreement with theoroughs of Colchester and Harwich, the Urban Districts of Brightlingsea, Clacton, Walton-on-Sea, Walton-on-the-Naze, West Mersea and Wivenhoe, and with the Rural Districts of Lexden and Winstree and Tendring for the constitution of a Joint Statutory Regional Planning Committee.

### HOUSING (RURAL WORKERS) ACT, 1926.

The administration of this Act has been delegated by the County Council to the Rural Amenities Committee. The duties thereunder are carried out by the County Land Agent, who has kindly supplied the following report upon the work carried out during the year 1932 :—

The number of requests for Forms of Application during the year 1932 was forty-one. Twenty-five Forms were returned relating to 59 cottages.

The Districts in which the cottages are situate are as follows :—

District.	No. of Applications.	No. of Cottages.	No. of Cottages in respect of which Grants have been made.	Total Grants	
					£
Braintree R. . .	..	4 ..	11 ..	9 ..	869
Belchamp R. . .	..	1 ..	1 ..	1 ..	100
Billericay R. . .	..	2 ..	4 ..	4 ..	274
Chelmsford R. . .	..	3 ..	7 ..	7 ..	700
Dunmow R. . .	..	1 ..	3 ..	— ..	—
Epping R. . .	..	1 ..	1 ..	1 ..	93
Halstead R. . .	..	2 ..	6 ..	— ..	—
Lexden & Winstree R.	3 ..	6 ..	6 ..	..	600
Maldon R. . .	..	1 ..	2 ..	— ..	—
Ongar R. . .	..	3 ..	6 ..	6 ..	400
Stansted R. . .	..	2 ..	7 ..	7 ..	700
Tendring R. . .	..	1 ..	2 ..	— ..	—
West Mersea U. . .	..	1 ..	3 ..	3 ..	200
<hr/>		25 ..	59 ..	44 ..	£3,936

Of the cottages included in the above applications, 44 were approved for grants as above, 4 were withdrawn and 11 were still under consideration at the end of the year.

The total number of cottages approved for reconditioning under the Act, in Essex, up to the 31st December, 1932, is 270.

### SEWAGE WORKS AND RIVERS POLLUTION.

Table VI records the number of visits paid by the County Health Inspector to sewage works, and the number of samples obtained. Where continuous unsatisfactory samples were procured, improvements have been carried out or schemes to improve the quality of the effluents are under consideration.

**LOANS.** During the year three Municipal Boroughs, two Urban Districts, and two Rural Districts, made application to the Ministry of Health for sanction to borrow varying sums of money, a gross total of £149,560, for works of sewerage and/or sewage disposal. Public Inquiries were held on the dates shown in the following table:—

Date of Inquiry.	Local Sanitary Authority.	Parish.	Catchment Area.	Loan required.	Purpose.
1932. Jan. 27th	Barking B.	—	Thames	£ 11,000	Sewerage.
29th	Epping R.	—	Roding	2,300	"
Feb. 23rd	Chelmsford B.	Including the contributory place of Springfield in Chelmsford R.D.	Chelmer	40,600	Sewage disposal.
Apl. 7th	Chingford U.	—	Lea	20,000	" "
June 21st	Chelmsford B.	—	Chelmer	2,260	" "
Oct. 7th	Billericay R.	Laindon Gt. Burstead Lt. Burstead Lee Chapel Langdon Hills } Crouch	46,000	Sewerage and sewage disposal.	
Nov. 2nd	Ilford B.	—	Roding	22,500	Sewerage.
Dec. 2nd	Walton-on-Naze U.	—	Sea	4,900	"
			Total ..	£149,560	

### FOOD AND DRUGS.

The County Analyst, Dr. Bernard Dyer, of 17, Great Tower Street, London E.C., has kindly provided a copy of his Annual Report for the period 1st Dec. 1931, to 30th November, 1932, from which the particulars on page 22 have been extracted:—

TABLE VI.

HOWING SEWAGE WORKS, NUMBER OF VISITS, AND NUMBER OF SAMPLES TAKEN  
DURING THE YEAR 1932.

Catchment Area.	Sewage Works.	Sanitary District.	No. of Visits.	Samples taken.		
				No. satisfactory or on border line.	No. unsatisfactory.	Total.
rain ..	Braintree ..	Braintree U...	2	1	1	2
	Black Notley Sanatorium	Braintree R...	1	—	1	1
lackwater ..	Bocking ..	Braintree R...	4	3	—	3
	Coggeshall ..	Braintree R...	2	1	1	2
	Hatfield Peverel ..	Braintree R...	1	—	1	1
	Kelvedon ..	Braintree R...	2	2	—	2
	Silver End ..	Braintree R...	3	1	2	3
	Witham ..	Witham U. ...	2	1	1	2
am ..	Saffron Walden ..	Saffron Walden B...	1	1	—	1
helmer ..	Chelmsford ..	Chelmsford B...	2	—	1	1
	Dunmow ..	Dunmow R...	2	2	—	2
	Felstead ..	Dunmow R...	3	3	—	3
	Great Waltham ..	Chelmsford R...	1	—	1	1
	Thaxted ..	Dunmow R...	3	3	—	3
olne ..	Halstead ..	Halstead U...	1	1	—	1
Tiptree ..	Sible Hedingham ..	Halstead R...	1	1	—	1
	Tiptree ..	Maldon R...	1	1	—	1
rouch ..	Great Burstead ..	Billericay R...	2	2	—	2
ngrebourne ..	Wickford ..	Billericay R...	1	—	1	1
	Brentwood Joint ..	Brentwood U.	3	2	—	2
	Brook Street, South Weald ..	Billericay R...	2	4	—	4
	Harold Wood ..	Hornchurch U...	3	—	4	4
	Upminster ..	Romford R...	3	—	3	3
ardyke ..	Bury Farm, Great Warley ..	Romford R...	4	1	3	4
oding ..	South Ockendon ..	Purfleet U...	2	—	2	2
	Abridge ..	Ongar R...	2	1	1	2
	Buckhurst Hill ..	Buckhurst Hill U...	3	3	—	3
	Chigwell ..	Epping R...	2	2	—	2
	Chigwell Row ..	Epping R...	4	2	—	2
	Epping ..	Epping U...	2	1	1	2
	Grange Hill ..	Epping R...	4	—	3	3
	Hainault ..	Ilford B...	2	—	2	2
	Loughton ..	Loughton U...	2	2	—	2
	North Weald ..	Epping R...	2	1	1	2
Rom ..	Ongar ..	Ongar R...	3	2	4	6
	Theydon Bois ..	Epping R...	4	1	2	3
	Thornwood ..	Epping R...	2	2	—	2
	Wanstead ..	Wanstead U...	2	2	—	2
	Woodford ..	Woodford U...	2	2	—	2
Wid ..	Hornchurch ..	Hornchurch U...	3	1	2	3
	Billericay ..	Billericay R...	2	1	1	2
Holland Brook ..	Ingatestone ..	Chelmsford R...	3	1	1	2
	Great Warley ..	Romford R...	5	—	2	2
	Shenfield ..	Billericay R...	1	1	—	1
	Thorpe-le-Soken ..	Tendring R...	1	1	—	1
	Kirby Creek ..	Tendring R...	1	1	—	1
Thames ..	Canvey Island (private)	Canvey Island U...	1	—	1	1
Samples from rivers, streams, ditches, &c.			6	4	3	7
Trade effluents ..			10	7	4	11
Total ..			121	68	50	118

		Samples Analysed.	Samples.	Unsatisfactory.	Percentage of Unsatisfactory Samples:
1-12-31 to 31-8-32	Northern District of the County	882	..	20	.. 2.3
	Southern District of the County	1,658	..	32	.. 1.9
1-9-32 to 30-11-32	Metropolitan District of the County	.. ..	1,905	.. 40	.. 2.1
	Eastern District of the County	299	..	10	.. 3.4
	Western District of the County	597	..	13	.. 2.2
	Barking Borough	..	2	—	.. —
	Benfleet Urban District	..	3	—	.. —
	Chingford Urban District	..	12	—	.. —
	Walthamstow Borough	..	75	.. 3	.. 4.0
	Wanstead Urban District	..	52	.. 2	.. 3.8
	Total	..	5,485	.. 120	.. 2.2

NOTE.—As and from 1st September, 1932, the areas of the Food and Drugs Inspectors were amended as a result of the retirement of Mr. A. Ward, who was in charge of the Northern District.

MILK. Of the 1,527 samples examined, 72 proved unsatisfactory, and of these 23 contained added water in quantities ranging up to 21 per cent. The remaining 49 samples were deficient in fat in quantities ranging from 4 per cent. to 43 per cent. of the minimum quantity of fat proper to normal milk.

LARD. Three samples purchased as lard consisted not of lard but of cooking fats containing fat derived from other sources than lard.

SAUSAGES. Out of the 236 samples taken, 12 were found to be unsatisfactory, 11 by reason of non-compliance with the regulations relating to preservatives, and one by reason of misdescription. The latter sample was guaranteed by the supplier to contain 12 ozs. of meat per pound, whereas on analysis it proved to contain not much more than 10 ozs. of meat per pound.

VINEGAR. Of the 135 samples examined, 16 were unsatisfactory, 14 by reason of deficiency in acetic acid, while two sold as "malt vinegar" contained acetic acid derived from other sources than malt or grain.

### MILK SUPPLY.

#### Milk and Dairies (Consolidation) Act, 1915.

No routine inspections of dairy herds by Veterinary Surgeons were undertaken during 1932, the activities being limited to the taking of samples of milk by the County Food and Drugs Inspectors and the County Health Inspector for biological examination.

*Biological Examinations.* Out of 456 samples, 29 (or 6.4 per cent.) were found to contain tubercle bacilli. There were in addition 9 inconclusive tests owing to deaths of guinea pigs from intercurrent infection.

The 29 positive samples were obtained from 26 farms. Each dairy herd at these farms was inspected by the County Council's appropriate part-time veterinary surgeon with the following results :—

- (i) 30 cows from 23 farms were slaughtered under the Tuberculosis Order, 1925, 14 being in an advanced stage of tuberculosis, and 16 not in an advanced stage of tuberculosis.
- (ii) 10 cows had been disposed of otherwise at 3 farms.

SECTION 4. During the year 20 notifications were received under Section 4 of the Milk and Dairies (Consolidation) Act, 1915, to the effect that biological examinations of samples of milk from 24 farms within the County of Essex had revealed the presence of tubercle bacilli. Each dairy herd at these 24 farms was inspected by the County Council's appropriate part-time Veterinary Surgeon with the following results :—

- (i) 29 cows from 19 farms were slaughtered under the Tuberculosis Order, 1925, 13 being in an advanced stage of tuberculosis, and 16 not in an advanced stage of tuberculosis.
- (ii) The Veterinary Surgeons failed to find any cow suffering from tuberculosis at 5 farms. At two of these farms cows had been disposed of otherwise. The milk from the remaining three farms was part of a mixed sample from four farms, the result of the inspection of one of these four farms being included in the preceding paragraph (i).

#### Milk and Dairies Order, 1926.

The local Sanitary Inspectors in one Borough, six Urban Districts, and seven Rural Districts took advantage of the County Council's laboratory facilities by submitting 161 samples of milk to microscopical examination ; none of these samples were found to contain acid-fast bacilli indistinguishable from the tubercle bacilli. Microscopic examination of bulk milk samples is not likely to be of much use in respect to the discovery of the tubercle bacillus. These samples were also submitted to the coliform bacteria test, and in 22 samples (14 per cent.) coliform bacteria were present in 1/1000th cubic centimetre, arbitrarily adopted for the present as an easily attainable standard of cleanliness.

#### Milk (Special Designations) Order, 1928.

The following licencees to produce graded milks were in operation during the year 1932 :—

Kind.		No.	Granted by.
Certified Milk ..	..	5 ..	Ministry of Health.
Grade A. (Tuberculin Tested) Milk ..	..	21 ..	Ministry of Health.
Grade A. Milk ..	..	47 ..	County Council.
Total ..	..	73	—
			—

### Grade "A" Milk.

Two hundred and three visits were paid to Grade A and other farms by the County Health Inspector, who obtained 166 samples for bacteriological examination. In each case where the sample from a farm licensed to produce Grade A milk did not comply with the standard, suitable representations were made to the farmer, who, in some instances, asked for the assistance of the East Anglian Institute of Agriculture, with satisfactory results.

### Tuberculosis Order, 1925.

The Agricultural Committee are responsible for the administration of this Order, and have again taken steps to eliminate and slaughter tuberculous cows, as will be seen from the following figures which have been furnished by the Clerk of the County Council :—

	1931.	1932.
No. of animals examined by Veterinary Surgeon	38,895 ..	41,776
No. of animals slaughtered under the Order ..	1,102 ..	1,130
No. of such animals found on post-mortem to be—		
(a) Not tuberculous .. ..	1 ..	Nil.
(b) Tuberculous—not advanced .. ..	677 ..	721
(c) Tuberculous—advanced .. ..	424 ..	409
Compensation paid by County Council .. ..	£7,001 ..	£6,470
Salvage .. .. ..	£1,693 ..	£1,345

### WATER SUPPLIES.

During the year one Borough Council and one Rural District Council made application to the Ministry of Health for approval to loans for works of water supplies, and in consequence public enquiries were held on the dates shown below :—

Date of Inquiry.	Local Sanitary Authority.	Parish.	Amount of Loan.	Purpose.
21st June, 1932	Chelmsford B.	Chelmsford	£ 2,690 8,500	{ Works of water supply.
22nd Sept., 1932	Lexden & Winstree R.	Layer Marney Layer Breton Inworth Messing	18,000  £29,190	" "

### TRADE, HOUSE AND OTHER REFUSE.

The Dagenham Urban District Council made application to the Ministry of Health for approval to the appropriation as a site for refuse disposal works on certain land in their area, and also for sanction to borrow £17,870 for the provision of a salvage plant thereat. Public inquiries were held on 18th March, 1932, and 4th July, 1932.

During the year, the County Council prepared a Private Bill, when opportunity was taken to introduce a Clause with a view to securing some control over the dumping of refuse (mainly from the London Boroughs) in this County. Detailed reference has been made in previous Annual Reports to the nuisances from these dumps which have been tolerated for many years. Further particulars will be included in next year's Annual Report.

Bye-laws for controlling the dumping of refuse were approved by the Ministry of Health for the following districts on the dates named :—Barking B. (24th September, 1926), Orsett R. (30th October, 1931), Tilbury U. (8th January, 1932), Grays U. (21st March, 1932), Purfleet U. (26th July, 1932), Rayleigh U. (31st May, 1932).

In 1932, the Romford Urban District Council and the Dagenham Urban District Council, by Private Acts, obtained additional powers to make bye-laws for regulating the tipping of dust, spoil, and refuse, but so far as I am aware have not yet adopted such bye-laws.

#### MENTAL TREATMENT ACT, 1930.

The Out-patient Clinic at Oldehurch Hospital, Romford, held by Dr. W. G. Masefield, the Medical Superintendent of the Brentwood Mental Hospital, has continued and was attended by 88 patients, involving 136 attendances. It is hoped that the services of the Social Worker referred to in last year's report will shortly be available in connection with this work.

The Out-patient Clinic at the Essex County Hospital, Colchester, held by Dr. R. C. Turnbull, Medical Superintendent of the Severalls Mental Hospital, also continued to carry out excellent work during the year.

#### MENTAL DEFICIENCY.

The Deputy County Medical Officer, Dr. T. P. Puddicombe, as in previous years, has examined and reported on cases both for the County Committee for the Care of the Mentally Defective, and for the Justices. Under these arrangements, 254 persons have been examined and classified as follows :—

		Males.		Females.		Total.
Feeble minded	..	84	..	62	..	146 (a)
Imbeciles	..	47	..	28	..	75
Idiots	..	12	..	8	..	20
Not certified under the Act	..	3	..	10	..	13 (b)
		146	..	108	..	254

(a) includes 12 males and 4 females, and (b) 2 males referred by the Justices.

Of the feeble-minded, 5 were post encephalitis and 4 epileptics. Included in the imbeciles are 2 mongols and 4 epileptics, 1 post encephalitic and 1 cretin. The idiots include post encephalitic, epileptic, cretin and mongol (1 of each).

Pressure on residential accommodation was slightly relieved during 1932 by extensions at branch institutions of the Royal Eastern Counties Institution (including the opening of West Hatch) and building has at last commenced in conjunction with the main Institution. The list of those awaiting institutional care is still a long one and accommodation in the new buildings will be welcomed. At the end of the year the position was as follows :—

		Males.	Females.	Total.
In Institutions ..	..	291	226	517
Under Statutory Supervision ..	..	510	415	925
Under Guardianship ..	..	19	17	36
Number on licence from Institutions ..	..	30	41	71

Of these, 35 were placed in Institutions, 1 under Guardianship, and 131 under Statutory Supervision during the year.

The Essex Voluntary Association, as in previous years, continued to render invaluable service on behalf of the defectives, including the organisation and control of occupation centres, of which there are four.

#### BLIND PERSONS ACT, 1920.

The work under this Act was carried out as in previous years, with certain modifications, by the Essex County Association for the Blind by arrangement with the Essex Education Committee.

There were 1,355 Blind Persons on the Register at the end of the year, a net increase of 70. There are 111 blind persons under 16 years of age. The 1,244 adults are classified as follows :—Undergoing training 29, employed 208, trained but unemployed 10, training under consideration 22, unemployable 975 (an increase of 52).

The Association also have under observation a further 397 cases suffering from defective vision, &c., but not definitely classed as blind.

The arrangements for certification have been greatly assisted by the appointment during the year of T. Collyer Summers, Esq., F.R.C.S., as Consulting Ophthalmic Surgeon to the County Council. His services have been readily available during the latter part of the year for difficult cases. The Assistant County Medical Officers have continued to carry out examinations and provided certificates as required.

#### METEOROLOGY.

The information given in Table VII on page 27 has again been kindly supplied by the County Meteorological Station at Chelmsford. It will be noted that the rainfall for 1932 (20.08 ins.) was lower than the rainfall for 1931 (22.71 ins.).

TABLE VII.

OBSERVATIONS FROM THE COUNTY METEOROLOGICAL STATION AT CHELMSFORD.

1932.	Dry bulb readings.	Wet bulb readings.	Maximum readings.	Minimum readings.	Absolute maximum.	Date of absolute maximum.	Absolute minimum.	Date of absolute minimum.	Number of rainy days.	Rainfall in inches.
January	42.2	41.0	48.2	35.6	56	3rd & 6th	20	1st	11	1.15
February	36.0	35.0	42.0	32.0	49	3rd	24	7th	7	0.23
March	40.1	38.0	48.0	32.6	55	20th, 27th, 28th, 31st	21	13th	12	1.10
April	45.8	43.4	51.7	39.0	61	30th	31	13th	25	1.96
May	52.8	49.8	59.0	44.8	73	19th and 20th	33	6th	23	3.59
June	60.4	55.3	67.2	48.0	79	27th	37	6th	6	0.6
July	64.0	59.6	71.0	54.0	82	10th	44	19th	14	2.14
August	66.2	63.4	75.4	55.3	95	19th	51	1st, 9th, 23rd, 24th, 27th, 28th	10	1.09
September	58.8	56.4	‡	49.2	77	15th	37	22nd	19	1.77
October	49.6	47.4	55.4	42.9	67	21st	30	29th	24	4.9
November	43.9	42.5	48.7	39.6	58	4th	30	10th	16	1.12
December	40.6	39.8	46.0	36.5	57	18th	28	6th & 31st	10	0.33
TOTAL—										
Year 1932	...	...	...	...	...	...	...	...	...	20.08
,, 1931	...	...	...	...	...	...	...	...	...	22.71

† Thermometer broken, readings not available.

## PROPAGANDA.

(1) TRAVELLING HEALTH EXHIBITION. The County Council assisted in providing Health Exhibitions in the following districts :—Aveley, Castle Hedingham, Chelmsford, Dunmow, Finchingfield, Great Maplestead, Littlebury, Maldon and Ongar.

(2) HEALTH LECTURES. Members of the staff of the County Public Health Department gave 37 lectures during the year to Women's Institutes, Women's Guilds, Midwives Associations, Nursing Associations, Farmers and Cowmen, &c.

## PART II.

### TUBERCULOSIS.

It will be noticed that some of the tables have been omitted this year, but they will be resumed in one of the subsequent reports.

#### Notifications.

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1930. A summary of the notifications made in the Administrative County of Essex during the period 3rd January, 1932, to 31st December, 1932, is given below :—

**TABLE VIII.**

		(a) FORMAL NOTIFICATIONS.												Total Notifica- tions.		
		Primary Notifications of New Cases of Tuberculosis.														
		Age Periods.														
		0—	1—	5—	10—	15—	20—	25—	35—	45—	55—	65	Total (all ages)			
Pulmonary, Males	.	—	8	13	16	61	81	178	145	103	58	7	670	807		
„ Females	...	1	2	9	13	76	94	169	81	32	33	8	518	617		
Non-Pulmonary, Males	..	4	47	78	30	13	10	22	17	5	3	6	235	268		
„ Females	...	4	27	43	35	22	13	22	14	7	—	3	190	209		

(b) SUPPLEMENTAL RETURN.

New cases of Tuberculosis coming to the knowledge of the Medical Officers of Health during the above-mentioned period, otherwise than by formal notification.

		Age periods.												Total.
		0—	1—	5—	10—	15—	20—	25—	35—	45—	55—	65—		
Pulmonary, Males	—	—	1	2	6	5	10	30	21	6	10	4	—	95
„ Females	—	—	—	2	4	10	35	37	17	7	5	—	—	117
Non-pulmonary, Males	—	—	6	6	3	5	1	5	2	—	2	—	—	30
„ Females	1	2	6	6	—	3	—	2	3	—	1	—	—	24

The sources from which information as to the above-mentioned cases was obtained are shewn overleaf.

TABLE IX.

umber of cases of Tuberculosis remaining at e 31st December, 1932, on the Registers of notifications kept by District Medical Officers of Health in the County.	Pulmonary.			Non pulmonary.			Total Cases.
	Males.	Females.	Total.	Males	Females	Total.	
	4243	3744	7987	1758	1665	3423	11,410
... mber of cases removed from the Registers uring the year by reason <i>inter alia</i> of :—							
1. Withdrawal of notification...	26	29	55	26	17	42	97
2. Recovery from the disease ..	61	71	132	48	52	100	232
3. Death .....	371	276	647	67	51	118	765

TABLE X.

SHOWING ATTACK AND DEATH-RATES FROM TUBERCULOSIS IN THE  
ADMINISTRATIVE COUNTY OF ESSEX.

YEAR.	Pulmonary Tuberculosis.				Non-Pulmonary Tuberculosis.				Tuberculosis (All Forms).			
	Notifi- cations.	Rate per 1,000 Pop.	Deaths.	Rate per 1,000 Pop.	Notifi- cations.	Rate per 1,000 Pop.	Deaths.	Rate per 1,000 Pop.	Notifi- cations.	Rate per 1,000 Pop.	Deaths.	Rate per 1,000 Pop.
1912-16	Not	851	0·86	Not	269	0·27	Not	1120	1·13			
1917-21	available	752	0·89	available	199	0·24	available	951	1·13			
1922-26	1110	1·16	656	0·69	320	0·34	148	0·15	1430	1·50	804	0·84
1927-31	1110	1·00	710	0·64	382	0·34	141	0·13	1492	1·34	851	0·77
1931	1255	1·05	777	0·65	421	0·35	162	0·13	1676	1·40	939	0·78
1932	1188	0·96	683	0·55	425	0·34	165	0·13	1613	1·30	848	0·68

TABLE XI.

SHOWING DEATHS FROM TUBERCULOSIS REGISTERED WITH LOCAL REGISTRARS OF BIRTHS AND DEATHS IN THE ADMINISTRATIVE COUNTY DURING 1932, AND PARTICULARS REGARDING NOTIFICATION UNDER THE PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS (*Transferable Deaths are excluded*).

DISTRICTS.	No. of Deaths.	After Death	When Notified.							No Information.
			Within 3 months of death.	Within 3-6 months of death.	Within 6-12 months of death.	Within 1-2 years of death.	Within 2-4 years of death.	More than 4 years before death.		
<b>Urban.</b>										
Barking B.	41	1	10	3	7	8	4	1	7	
Benfleet	4				1		1	1	2	
Braintree	8		1	1	1		1		2	
Brentwood	3				1			1	1	
Brightlingsea	2	1		1						
Buckhurst Hill	4	1	1					1	1	
Burnham-on-Crouch	1									
Canvey Island	4		1	1				1	1	
Chelmsford B.	17	3	3	3	3	2	1	5	5	
Chingford	13			4	1	2	3	3	3	
Claughton-on-Sea	6		1				2	2	2	
Colchester B.	36	4	14	2	3	5	4	3	1	
Dagenham	66	6	15	10	4	3	6	6	3	19
Epping	3		1	1	1					
Frinton-on-Sea	1		1							
Grays	10		3	1	3		2	1	1	
Halstead	5		2	1	2				2	
Harwich B.	8	1		2	1	1	1	1	1	
Hornchurch	14	3	2	1	1	3	3	3	3	
Ilford B.	58	5	11	8	4	6	12	9	3	
Leyton B.	56	4	8	3	5	8	12	8	3	
Loughton	1									1
Maldon B.	3		1	1	1					
Purfleet	2		1	1						
Rayleigh	4						2		2	
Romford	33	2	10	1	2	6	4	4	6	
Saffron Walden B.	6		4		1			1	2	
Shoeburyness	6	1	2		1				2	
Tilbury	24	5	2		2	2	3	4	6	
Waltham Holy Cross	1								1	
Walthamstow B.	63	7	11	3	8	14	7	10	3	
Walton-on-the-Naze										
Wanstead	10	1	2	1	3	1		3	2	
West Mersea	5			1	1	1				
Witham	2			1			1			
Wivenhoe	2	1							1	
Woodford	10	1	1		2	2	3	1		
<b>Totals</b>	<b>532</b>	<b>47</b>	<b>108</b>	<b>48</b>	<b>58</b>	<b>65</b>	<b>70</b>	<b>58</b>	<b>78</b>	
<b>Rural.</b>										
Belchamp										
Billericay	22		6	1	2	1	4	2	6	
Braintree	6		3				1	1	2	
Bumpstead										
Chelmsford	15		3	2	2			4	4	
Dunmow	2								2	
Epping	9	1	2	2	2	1	3	2	2	
Halstead	6			1			1	1	2	
Lexden and Winstree	15	2	4	2	2	1	1	1	3	
Maldon	12	1	2	1	1	1	2	2	2	
Ongar	3		1	1	1				1	
Orsett	12	1	5	1	1	1			3	
Rochford	12		3		1	1	1	1	5	
Romford	8		2	2			1	2	2	
Saffron Walden	5		2		1		1		1	
Stansted	3		2						1	
Tendring	12	1	3	1		3	2	1	1	
<b>Totals</b>	<b>142</b>	<b>6</b>	<b>40</b>	<b>7</b>	<b>12</b>	<b>9</b>	<b>18</b>	<b>13</b>	<b>37</b>	
URBAN DISTRICTS	532	47	108	48	58	65	70	58	78	
RURAL DISTRICTS	142	6	40	7	12	9	18	13	37	
<b>TOTALS</b>	<b>674</b>	<b>53</b>	<b>148</b>	<b>55</b>	<b>70</b>	<b>74</b>	<b>88</b>	<b>71</b>	<b>115</b>	

## No Notification.

It will be observed from Table XI that there are still quite a number of deaths recorded in which Tuberculosis was the cause or a contributory cause of death, though the patient had not been notified under the Public Health (Tuberculosis) Regulations. This is to be deplored, as it is quite probable that a large number of such patients were probably unaware of the facilities provided under the County Scheme for the treatment of Tuberculosis. Not only do the patients themselves suffer in this way, but the important work of examining contacts is also seriously hampered.

## Dispensaries.

The figures in Table XIII show a further decrease in the number of patients shown on the Dispensary Registers at the end of the year, namely, 4,824, as compared with 5,111 at the end of 1931 and 6,135 at the end of 1930, and as mentioned in the Report for 1931, this decrease is due to the special efforts being made to remove from the Dispensary Registers the names of all patients about whom some definite information is not available, and in whom the original diagnosis of Tuberculosis has not been confirmed.

During the year new arrangements were made for issuing medicaments (*i.e.*, cod-liver oil and malt, cough mixtures, &c.), from Dispensaries. Instead of keeping stocks of medicaments at the Dispensaries the Tuberculosis Officers now issue prescription forms to patients who exchange them at the Chemists for the medicament prescribed, at cost price, half price, or in necessitous cases, free. This arrangement, of course, only applies to uninsured patients, as insured patients obtain medicaments, through their panel Doctor.

During the year a Tuberculosis visiting station was opened at Vange, and judging from the weekly attendees made by patients, it is proving a very convenient centre for patients who live in a difficult district.

A new Combined Treatment Centre at Laindon (including Tuberculosis Dispensary) was also opened during the year, and will be of considerable benefit to those patients who, in the past, have had to travel long distances to Southend, Grays or Brentwood when they desired to attend a Dispensary.

## Institutional Treatment.

Tables XVII on pages 44--45 give particulars of the extent of Institutional Treatment provided during the year. Every effort is made to ensure that all the accommodation available is put to the best possible use, and it is worthy of note that the special instructions to which attention is called in the Report of the Committee on Local Expenditure, issued by the Ministry of Health in November, 1932, have been very carefully observed in Essex for a number of years. With the valuable assistance of Dr. W. Burton Wood for Pulmonary cases, and Sir Henry J. Gauvain for Non-Pulmonary cases, a diagnosis is made whenever possible, before a patient is admitted to an Institution, and careful consideration is given to all recommendations for Institutional Treatment in order to ensure that the right type of case is admitted.

### (a) COUNTY SANATORIA.

(a) BLACK NOTLEY SANATORIUM. The accommodation at this Institution was increased from 184 to 188 beds during 1932, the additional four beds being provided

in the Men's Surgical Block by the erection of two shelters. This Sanatorium has been used to its fullest extent, and all cases admitted, both pulmonary and non-pulmonary, have been specially selected so that the beds have been occupied by those patients able to take full advantage of the excellent facilities at this Sanatorium for both diagnosis and treatment.

At my request Dr. M. C. Wilkinson, Medical Officer at the Sanatorium, has submitted the following report :—

In submitting my annual report for 1932, I am able to state that the work of the Sanatorium has continued to progress. It will be seen from the particulars submitted in what directions fresh developments have taken place.

	Pulmonary.		Non-Pulmonary.			
	Women.	Children.	Men.	Women.	Children.	Total.
No. of beds available ..	75	25*	..	24	32*	32* .. 188

\*These numbers fluctuate considerably according to the waiting list.

The number of patients treated was approximately the same as in 1931 : there were three hundred and eleven admissions and three hundred discharges. It is of interest to note the average duration of treatment of patients discharged in 1932. This was 8.5 months for the pulmonary patients and 9 months for the non-pulmonary. The lack of disparity between the length of treatment in the two types of cases is an indication of the change in the method of treating pulmonary tuberculosis. Formerly graduated exercise was the main line of treatment in Sanatoria, the patient being discharged when a certain amount of exercise could be tolerated without the production of symptoms. The modern method is to treat the disease by resting the affected part : this is accomplished either by resting the patient in bed, or by producing local rest of the lung by artificial pneumothorax, and similar methods of treatment. Believing that these methods, if applied for a sufficient time in specially selected cases, are likely to produce results superior to those produced in the past, the County Medical Officer and Dr. Burton Wood have pursued the policy of providing a fully adequate period of treatment for patients who are likely to respond. It is therefore not unusual for a case of pulmonary tuberculosis to remain in the Sanatorium twenty months. To compensate for this, it is necessary to restrict the length of stay of patients to whom treatment can only be palliative, and to make arrangements at other Sanatoria for patients who are not suitable for treatment by collapse therapy.

It follows that a high percentage of cases in the Sanatorium, usually nearly fifty per cent., are having treatment by collapse therapy.

During 1932 a development in the treatment of pulmonary tuberculosis at the Sanatorium has been the performance of a series of 23 phrenic evulsions. This operation is an alternative or an accessory to pneumothorax treatment. Dr. Burton Wood considers that the results in this series have been encouraging, and that it is a valuable measure in specially selected cases : the selection of the case is, however, he considers, of paramount importance, as there are many cases in which the operation would produce no benefit. It

is of interest to note that no thoracoplasty operations were done in 1932, and that the number of cases requiring division of adhesions was very small ; it has been found on several occasions that adhesions which it was thought would require division, have stretched in due course, and operative treatment has become unnecessary.

By arrangement with the County Medical Officer, Dr. Burton Wood has also extended the work of the Sanatorium by starting clinics at the Sanatorium for out-patients. The attendance of the patient is arranged by the Tuberculosis Officer, in consultation with the General Practitioner. As either the Tuberculosis Officer or the private doctor has often taken the opportunity to be present, the clinics have proved a valuable source of liaison between the Sanatorium and the medical profession in Essex. It has recently been necessary to increase the number of clinics to two a month ; they are held on the second and fourth Wednesday afternoons.

A further interesting feature is the diagnosis and treatment of cases in the children's medical ward. Children are admitted to this ward either for observation on account of suspicious symptoms, or for treatment of a diagnosed tuberculous lesion. Eighty-nine such cases have been admitted during the past two years and ten months.

The conditions found were as follows :—

Non-tuberculous .. .. ..	39
Tuberculous Pleurisy .. .. ..	13
Primary infection of childhood .. .. ..	13
Hilum tuberculosis .. .. ..	10
Pulmonary tuberculosis of adult type .. .. ..	7
Epituberculosis .. .. ..	5
Tuberculous broncho-pneumonia .. .. ..	2

The above figures confirm the general experience that pulmonary tuberculosis of the adult type is a rare disease in children.

In arriving at a diagnosis in addition to the history and clinical findings, Dr. Burton Wood prefers in the majority of cases to have X-ray evidence of disease before the diagnosis is confirmed.

A tuberculin skin test is also performed as an aid to diagnosis.

With regard to treatment, with the exception of cases of Bronchopneumonia and pulmonary tuberculosis of the adult type, these children uniformly do well under Sanatorium conditions. It is the rule for successive skiagrams to show gradual clearing of the disease, and for the patient to be discharged with the disease apparently quiescent.

With reference to the treatment of non-pulmonary tuberculosis, Sir Henry Gauvain has expressed his satisfaction with the results obtained. It is possible that cases should occasionally relapse after discharge, but with thorough treatment this may be prevented in the majority of cases. It is therefore interesting to note that of the one hundred and fifty-eight cases that have been discharged from the Sanatorium as quiescent during the past two years and ten months, nine have required re-admission for a

further period of treatment. Of these nine, only three were children. This is an indication that a permanent cure may be expected in a high percentage of the remainder.

To facilitate the early admission of cases suffering from bone and joint tuberculosis, an important factor in the production of good results, the County Medical Officer has arranged that whenever there is pressure on the beds for children, cases at Black Notley may be transferred to High Beech Sanatorium to complete their treatment. Thirty-eight cases were transferred in 1932.

During the past year four more beds have been provided in the men's surgical block by adding two more shelters. Also the pavilion verandah has been extended to allow room to wheel patients out for sun treatment. The accommodation in this block has proved satisfactory, except that the duty room has also to serve as a recreation room, and the facilities for the men's recreation in the winter are therefore limited.

With reference to the X-Ray Department, the fact that the expert advice of Dr. Franklin Wood has been available, has resulted in the maintenance of a high standard in the X-Ray work, which has been noted by Sir Henry Gauvain and Dr. Burton Wood. Owing to the increase in the number of out-patients examined at the Sanatorium, the number of X-Ray examinations rose from a thousand and fifteen in 1931 to fifteen hundred and sixty in 1932. In addition screen examinations are carried out in connection with pneumothorax work.

In consequence of the appointment of Dr. A. Burrows to supervise the work in the Artificial Light Department, the work in this Department has been improved :—

Number of patients treated .. ..	131
Courses of treatment given .. ..	143

The lamps consist of two Mercury Vapour Lamps, two Carbon Arc Lamps, one Kromayer Mercury Vapour Lamp, and one "Sollux" Heat Ray Lamp.

*Treatments given with each type of Lamp.*

Mercury Vapour Lamps ..	54	patients received	1,644	treatments.
Carbon Arc Lamps ..	62	..	1,769	"
Sollux Heat Ray Lamp ..	13	..	202	"
Kromayer Lamps ..	14	..	135	"
 Total number of Treatments ..			3,750	

The number of treatments given to each patient and the number of patients treated have been considerably increased. In addition a small number of out-patients who live in the neighbourhood have been treated. Good results have been obtained, particularly in patients who have had tuberculous skin lesions.

During the past two years the Dick test for susceptibility to scarlet fever, and the immunisation of those susceptible has been performed on

children admitted to the surgical blocks. During this period these wards have been free from scarlet fever, except for a mild epidemic in 1932, when three cases occurred. In the year previous to the introduction of this procedure at the Sanatorium, there were two epidemics in these blocks, in the first of which there were thirteen cases, in the second nine. The evidence available indicates that Dick immunisation has been valuable in producing freedom from infection.

The Dick vaccine used was supplied in strengths A and C, the A being the weaker. The course of injections was 0.2.c.c. of A, followed by 0.4.c.c. of A, followed by 0.2.c.c. of C, at weekly intervals. The reaction produced by these doses though mild, was sufficient to indicate that the dose was adequate, though how long the immunity lasts has not been determined. Sixty-seven children were tested : of these, forty-one were Dick positive or susceptible to scarlet fever, and twenty-six were negative. Apart from the prevention of scarlet fever, a further point is that during the past year no joint has become secondarily infected to the point of progressive toxæmia and amyloid disease, two of the most dangerous complications of joint tuberculosis. That the Dick vaccine has played a part in producing this satisfactory state of affairs can, however, only be regarded as a supposition.

In April, 1932, for the first time at the Sanatorium, a number of nurses sat for the examination of Tuberculosis Associations. The results reflected much credit on the Matron, the Sister Tutor and the Nursing Staff. In part one of the examination, six nurses entered and five passed : in part two, twelve nurses entered and ten passed, two with honours. During the year a number of probationer nurses who had completed their period of training at the Sanatorium, left to take up nursing at a General Hospital. Many of these while at the Sanatorium had already shown great promise of success in their profession.

As regards the work in the laboratory owing to the difficulty of obtaining sputum from children, routine examination of the stools for tubercle bacilli has been carried out in cases where a lung lesion is suspected. It is hoped also to introduce examination of stomach washings for tubercle bacilli. Blood sedimentation tests are carried out in selected cases as a guide to prognosis, and as an additional means of assessing the results of treatment. This work is very efficiently performed by Miss Williams, Dispenser-Clerk.

With reference to the important matter of the patient's diet, during the year a fully trained kitchen sister and an assistant of a similar standing, were appointed for duty in the kitchen. Formerly a cook of the domestic type was employed, but however capable and experienced such an employee may be, the training in cooking for institutional purposes which is available to-day, is of definite advantage in a Sanatorium, where the psychological aspect of food is as important as the nutritive.

It is a pleasure to record in 1932 three occasions when visitors were afforded special facilities for visiting the Sanatorium. These were the Tuberculosis Officers' Conference, the "Open Day" for general practitioners in Essex, and the Matron's "At Home." Each of these occasions met with

suecess. On the "Open Day," Alderman F. D. Smith, Councillor W. T. Potts and the County Medical Officer were present to welcome the general practitioners, of whom as many as seventy attended. Both on this occasion and at the Tuberculosis Officers' Conference appreciation was expressed of the address given by Dr. Burton Wood, and of the demonstrations arranged. At the Matron's "At Home" many lay members of Associations interested in tuberculosis work, took the opportunity to visit the Sanatorium for the first, though one was led to hope, not the last time. In connection with the "At Home" a very successful sale of the work of the children was arranged by the Teachers.

I also wish to record the gratitude of the patients and staff to Mr. W. G. Spencer, of Ilford, and the Grenfell Troup of Rover Scouts, who have given a splendid concert each year at the Sanatorium.

Finally, mention should be made of the valuable services to the Sanatorium during the year of Dr. J. C. Sleigh, previous to his appointment as Medical Officer of Health to Chelmsford, and to Dr. J. Hatton previous to his appointment as Medical Officer of Health to Braintree and Witham.

The following are statistics of the results of treatment of patients who were discharged in 1932 :—

*Discharges from January 1st to December 31st, 1932.*  
*Adults.*

	Quiescent.	Improved.	Not Improved.
Pulmonary tuberculosis between 14—28 years	18	39	22
Pulmonary tuberculosis over 28 years	8	12	3
Observation cases discharged as negative	18	—	—
Tuberculous adenitis	1	1	2
Tuberculous peritonitis	4	1	1
Tuberculous pleurisy	—	2	—
Tuberculosis of the spine	4	5	1
Tuberculosis of the hip	5	2	2
Tuberculosis of the knee	1	2	1
Tuberculosis of the sacro-iliac joint	4	2	—
Genito-urinary tuberculosis	—	5	—
Various	6	3	3
	69	74	35

*Children.*

Pulmonary tuberculosis under 14	1	3	3
Observation cases discharged as negative	21	—	—
Admitted as tuberculous, diagnosis not confirmed	8	—	—
Tuberculous cervical gland	14	5	3
Tuberculous pleurisy	1	2	—
Primary infection of childhood	5	—	—

	Quiescent.	Improved.	Not improved.
Hilum tuberculosis ..	6	1	—
Tuberculous peritonitis ..	5	2	1
Tuberculosis of the spine ..	9	—	2
Tuberculosis of the hip ..	6	1	3
Tuberculosis of the knee ..	5	3	—
Various ..	2	4	3
	86	21	15

Total number of discharges .. 300

(b) HAROLD COURT SANATORIUM. The good work carried out at this Institution during recent years has been fully maintained during 1932, and as at Black Notley the cases admitted were selected as far as possible so that the real "Sanatorium" cases could receive maximum treatment. The following statistics relating to this Sanatorium have been supplied by Dr. J. S. Harper, Medical Officer of the Sanatorium :—

Accommodation—70 beds for adult males suffering from Pulmonary Tuberculosis.

Total number of Patients admitted during the year .. .. 207

Discharged home after period of Sanatorium Treatment .. 117

Discharged home after one month's educational treatment .. 40

Transferred to other Institutions :—

London Fever Hospital, Liverpool Road .. 20

British Legion Village, Preston Hall .. 3

Papworth Village Settlement .. 1

City of London Hospital .. .. 4

Royal National Sanatorium, Bournemouth .. 4

Oldchurch Hospital, Romford .. 4

Burrow Hill Training Colony .. 2

— 38

Discharged home at own request .. .. 6

Number of patients died .. .. .. 6

Total number of patients discharged during the year .. .. 207

Amongst the cases discharged home were nine diagnosed Non-Tuberculous, and includes one patient in whom the diagnosis was altered from Pulmonary Tuberculosis to Non-Tuberculous.

Excluding the non-tuberculous, tubercle bacilli had been, or were demonstrated in, 156 cases. Tubercle bacilli were not found in 42 cases, either before or after admission.

Of the 18 cases admitted for Observation, 10 were found to be suffering from Tuberculosis and 8 not.

*Treatment.* Patients were treated on the general sanatorium lines; rest and graduated exercise, with emphasis on the rest. In suitable weather patients 'up all day' did light gardening.

*Artificial Pneumothorax Treatment.* During the year 41 patients received 589 artificial pneumothorax refills.

Of these 41 cases, 17 were carried over from the previous year. In 1932, 14 cases were induced at Harold Court and 10 had artificial pneumothorax before admission.

Of the 20 cases considered suitable for this treatment during 1932, it could not be done in two, owing to pleural adhesions, and two did not wish it, but one of these has since been re-admitted, asking if he might have this form of treatment.

Three patients received Sanocrysin treatment, and were given a total of 27 intravenous injections.

Tubercular laryngitis was present, as a complication in seven cases.

291 X-Rays have been taken during the year, 267 at Oldchurch Hospital, Romford, and 24 at the City of London Hospital, Victoria Park, E.2.

*Immediate results of Treatment.* The following table shows the condition on discharge of the 207 patients, excluding six patients who died, and nine patients found not to be suffering from Tuberculosis :—

		T.B. +		T.B. -		Total.	
Not Quiescent	..	..	134	..	26	..	160
Quiescent	..	..	21	..	11	..	2

(c) HIGH BEECH SANATORIUM. The accommodation for 32 children (glandular and convalescent cases of Non-Pulmonary Tuberculosis) continues to be of great assistance in dealing with the large number of children suffering from Tubercular glands, &c., who derive considerable benefit from a short stay under ideal conditions. It has also facilitated the transfer of children from the Blaek Notley Sanatorium when they have reached the convalescent stage, thus freeing valuable beds for children requiring early active treatment. The following is a report by Dr. L. S. Fry, Medical Officer at the Sanatorium :—

There were 123 cases admitted during the year. These were made up as follows :—

Gland cases	..	..	..	..	77
Abdominal Tuberculosis	..	..	..	..	22
Bone and Joint cases, mostly transferred from Black Notley	..	..	..	..	2
Mediastinal Glands	..	..	..	..	2

A considerable number of gland cases were admitted for "observation," and in these the Mantoux or intradermal Tuberculin test has been found of great assistance in arriving at a diagnosis.

The technique adopted in doubtful cases has been as follows :—

An injection of .1.c.c. of a 1 in 100,000 dilution of Old Tuberculin. If negative .1.c.c. of a 1 in 1,000 dilution is given one week later. If this also proves negative .1.c.c. of 1 in 100 is given.

If a child with slightly enlarged glands is negative to all three tests, it is, I think, safe to conclude that the condition is not tuberculous. At least, up to the present no case has come to my notice in which a negative diagnosis was made, but which subsequently proved, by reason of eascation or calcification in the glands, to have been definitely tuberculous.

Severe local reactions have been rare. In two children only during the past two years there was induration at the site of injection, which later broke down into a shallow tuberculous ulcer and slowly healed.

Since March, 1932, all children not known to have had Diphtheria or Scarlet Fever have been Schick and Dick tested.

The results have been as follows :—

Schick Test, 23rd March—December 31st, 1932 ..	Positive ..	56
	Negative	35
Dick Test, 20th April—31st December, 1932 ..	Positive ..	40
	Negative	27

There occurred during the year three cases of Diphtheria (two nasal) and two of Scarlet Fever.

To know the state of immunity of the other children in the ward when a case of one of these diseases arises is of considerable assistance, as it is possible to give at once if necessary, a prophylactic dose of Diphtheria Antitoxin or antistreptococcal (Scarlatina) serum.

In December, a child who had been in the Sanatorium for several months developed severe Herpes Zoster, some 14 days later a case in the next bed developed Chicken Pox and nearly every child in the ward who had not previously had it contracted the disease.

## 2) INSTITUTIONS UNDER AGREEMENT.

The beds at the Colchester and Chingford Sanatoria have continued in use as in previous years, but the beds at the Ilford Sanatorium ceased to be used for adult surgical male cases, accommodation for such cases now being adequately provided at the Black Notley Sanatorium. In their place adult female cases of pulmonary Tuberculosis in the intermediate and moderately advanced stages have been admitted. Accommodation for this type of case is always difficult to obtain and these available beds at Ilford are proving extremely useful.

There is no doubt about the usefulness and great advantages which result from having small groups of beds available in various parts of the County (particularly where the population is large), for intermediate and advanced cases of pulmonary tuberculosis. Patients coming within these groups are much more contented when their friends and relatives are able to conveniently visit them.

For nearly 20 years a number of beds for advanced cases of tuberculosis have been available at the Colchester, Ilford and Walthamstow Isolation Hospitals, in specially erected separate pavilion blocks, and have proved extremely valuable to the County Scheme.

It is interesting to remark that there has been no known case of cross infection amongst the many hundreds of patients who have been admitted to these units in the precincts of Isolation Hospitals.

### (3) INSTITUTIONS NOT UNDER AGREEMENT.

An average number of 160 beds was kept occupied at various institutions other than those belonging to the County Council or under special agreement.

#### Tuberculosis Care Associations.

Table XVIII shows the work carried out by Care Associations during the year.

Grants were made by the County Council as follows to the Care Associations for "After-Care" purposes in respect to the year ended 31st March, 1933 :—

Care Association.	Amount of Grant.	Care Association.	Amount of Grant.
Barking ..	40	..	90
Chelmsford ..	50	..	40
Dagenham ..	50	..	25
Halstead ..	15	..	90
Ilford ..	80	..	50
Leyton ..			
Romford ..			
Saffron Walden ..			
Walthamstow ..			
Grays ..			

In addition to these grants the County Council make a grant of not exceeding £20 per annum to each Care Association for expenditure in connection with printing, stationery, &c.

#### Shelters.

During the year an average number of 86 shelters was in use by patients at their homes.

#### Travelling Facilities for Patients.

An amount of £53 3s. was expended during the year in providing necessitous patients with free travelling vouchers upon admission or discharge from Institutions, and special visits to "Out-patient" Departments.

#### Extra Nourishment.

During the year 93 patients were granted extra nourishment at a cost of £104 15s.

#### Public Health (Prevention of Tuberculosis) Regulations, 1925.

#### Public Health Act, 1925 (Section 62).

No action was taken during the year by the County Council under the above Regulations and Act.

**ew Cases and Mortality during 1932.**

The following table is supplied at the request of the Ministry of Health :—

**TABLE XII.**

Age Periods.	New Cases.				Deaths.			
	Pulmonary.		Non-pulmonary.		Pulmonary.		Non-pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
0— .. .. ..	—	1	4	5	5	3	6	7
1— .. .. ..	9	2	53	29	5	1	26	22
5— .. .. ..	15	11	84	49	2	2	20	11
0— .. .. ..	22	17	33	41	2	2	20	11
5— .. .. ..	66	86	18	22	53	69	12	8
0— .. .. ..	91	129	11	16	89	87	7	4
5— .. .. ..	208	206	27	22	97	59	4	7
5— .. .. ..	166	98	19	16	76	29	6	6
5— .. .. ..	109	39	5	10	55	23	5	4
5— .. .. ..	68	38	5	—	15	13	2	8
5 and upwards ..	11	8	6	4	397	286	88	77
	765	635	265	214				

TABLE XIII.

SHOWING THE WORK OF THE DISPENSARIES DURING THE YEAR 1932.

DIAGNOSIS.	PULMONARY.				NON-PULMONARY.				TOTAL.				GRAND TOTAL	
	ADULTS		CHILDREN		ADULTS.		CHILDREN		ADULTS.		CHILDREN			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
A.—NEW CASES examined during the year (excluding contacts):—														
(a) Definitely tuberculous ..	450	356	14	13	46	48	93	66	496	404	107	79	1086	
(b) Diagnosis not completed ..	..	..	..	..	..	..	..	..	34	32	29	19	114	
(c) Non-tuberculous ..	..	..	..	..	..	..	..	..	417	434	347	313	1511	
B.—CONTACTS examined during the year:—														
(a) Definitely tuberculous ..	33	40	2	3	..	5	5	3	33	45	7	6	91	
(b) Diagnosis not completed ..	..	..	..	..	..	..	..	..	2	15	11	10	38	
(c) Non-tuberculous ..	..	..	..	..	..	..	..	..	108	218	287	303	916	
C.—CASES written off the Dispensary Register as														
(a) Recovered ..	53	58	11	29	12	16	27	38	65	74	38	67	244	
(b) Non-tuberculous (including any such cases previously diagnosed and entered on the Dispensary Register as tuberculous) ..	..	..	..	..	..	..	..	..	603	720	738	727	2788	
D.—NUMBER OF CASES on Dispensary Register on Dec. 31st:—														
(a) Definitely tuberculous ..	1771	1356	122	108	210	237	461	407	1981	1593	583	515	4672	
(b) Diagnosis not completed ..	..	..	..	..	..	..	..	..	36	47	40	29	152	

1. Number of cases on Dispensary Register on January 1st ...	5651	8. Number of visits by Tuberculosis Officers to homes (including personal consultations) ...	1896
2. Number of cases transferred from other areas and cases returned after discharge under Head 3 in previous years	355	9. Number of visits by Nurses or Health Visitors to Homes for Dispensary purposes ...	18851
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of" ...	1431	10. Number of	
4. Cases written off during the year as dead (all causes) ..	475	(a) Specimens of sputum, &c., examined ..	2143
5. Number of attendances at the Dispensary (including contacts) ...	18052	(b) X-ray examinations made in connection with Dispensary work	1403
6. Number of insured persons under domiciliary treatment on the 31st December	478	11. Number of "recovered" cases restored to Dispensary Register and included in A (a) and A (b) above ...	5
7. Number of consultations with medical practitioners:—		12. Number of "T.B. plus" cases on Dispensary Register on December 31st ...	1970
(a) Personal ...	535		
(b) Other ...	3267		

TABLE V.

HOUSING ACT, 1930.

SUMMARY OF RETURNS RECEIVED FROM RURAL DISTRICT COUNCILS IN REGARD TO HOUSING CONDITIONS OF PERSONS OF THE WORKING CLASSES.

RURAL DISTRICT.	TOTALLY UNFIT HOUSES.						PARTIALLY UNFIT HOUSES.						ESTIMATED NO. OF HOUSES REQUIRED.						NO. OF HOUSES ERECTED 1919-1930.		PROPOSED NEW HOUSES, 1932.				
	1930.		No. in Col. 2 subsequently demolished.	Agric. Workers.	1931.		1930.		No. in Col. 7 subsequently rendered habitable.	No. in Col. 7 subsequently demolished.	1931.		Houses Over-crowded, 1930.		1930.	1931.		To meet over-crowding.		To meet normal expansion.		By R.D.C.	Approved by Minister of Health.	Not yet approved by Minister of Health.	
	No. in Cols. 4 & 5 also included in Col. 2.	Others.			No. in Cols. 4 & 5 also included in Col. 2.	Agric. Workers.	No. in Cols. 4 & 5 also included in Col. 2.	Agric. Workers.			Others.	Un-occupied.	No. in Cols. 10, 11 & 12 also included in Col. 7.	1930.	Agrie. Workers.	Others.	Agrie. Workers.	Others.	Agrie. Workers.	Others.	Agrie. Workers.		Others.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Belchamp	..	33	7	29	22	3	96	47	—	18	31	—	48	—	18	—	—	—	30	38	—	—	—	—	
Billerica	..	49	4	8	81	28	158	43	3	31	47	2	32	59	200	2	48	—	99	30	6322	—	50	—	
Braintree	..	102	38	46	34	52	208	163	—	38	24	12	—	10	130	14	11	—	552	923	28	24	42	99	
Bumpstead	..	12	5	26	1	7	53	6	—	25	—	2	19	10	32	10	—	—	73	7	14	—	10	—	
Chelmsford	..	32	2	—	25	18	36	36	—	—	—	—	—	154	—	—	48	60	587	1502	—	—	49	60	
Dunmow	..	36	—	24	—	24	120	65	—	44	9	2	—	28	141	54	7	116	25	326	287	24	—	34	
Epping	..	39	17	1	19	18	57	52	—	21	22	4	—	29	115	—	6	(j)	337	928	—	48	—	(a)	
Halstead	..	39	2	5	—	5	102	62	—	14	23	3	—	2	10	—	—	—	148	259	—	—	—	—	
Lexden & Winstree	..	57	2	5	51	17	251	186	2	(b)	4	—	15	82	2	12	82	—	560	669	8	—	(c)	—	
Maldon	..	33	9	7	5	12	61	32	—	16	10	—	—	4	170	2	2	13	15	367	516	14	14	(d)	—
Ongar	..	211	—	117	66	179	276	17	—	113	66	—	162	—	64	4	5	150	96	185	214	17	9	130	92
Orsett	..	19	5	11	9	1	69	69	—	14	58	2	—	5	(e)	1	4	16	10	638	1725	—	6	8	—
Rochford	..	3	1	1	17	2	8	3	—	9	34	7	5	9	20	15	26	—	—	242	1669	—	8	—	—
Romford	..	12	—	4	14	12	120	26	—	10	108	1	6	3	108	1	9	—	120	174	1696	—	—	(f)	
Saffron Walden	..	34	1	37	—	33	634	44	—	(g)	—	—	590	—	30	—	10	—	84	149	—	—	(h)	—	
Stansted	..	2	—	—	3	2	(i)	—	—	1	—	1	—	70	—	48	—	22	58	163	—	6	—	70	
Tendring	..	—	—	10	2	—	58	95	—	31	142	2	5	16	150	1	18	6	96	308	1069	12	40	32	68

## NOTES.

(a) None. Consider present housing needs have been met.  
 (b) Record not kept.  
 (c) Consideration of question deferred.  
 (d) None at present.  
 (e) Building programme designed to meet current requirements.  
 (f) 44-56 as first part of scheme.

(g) Majority known to be occupied by agricultural workers.  
 (h) Under consideration.  
 (i) Houses requiring repairs are being constantly dealt with under appropriate Acts.  
 (j) Impossible to estimate accurately.

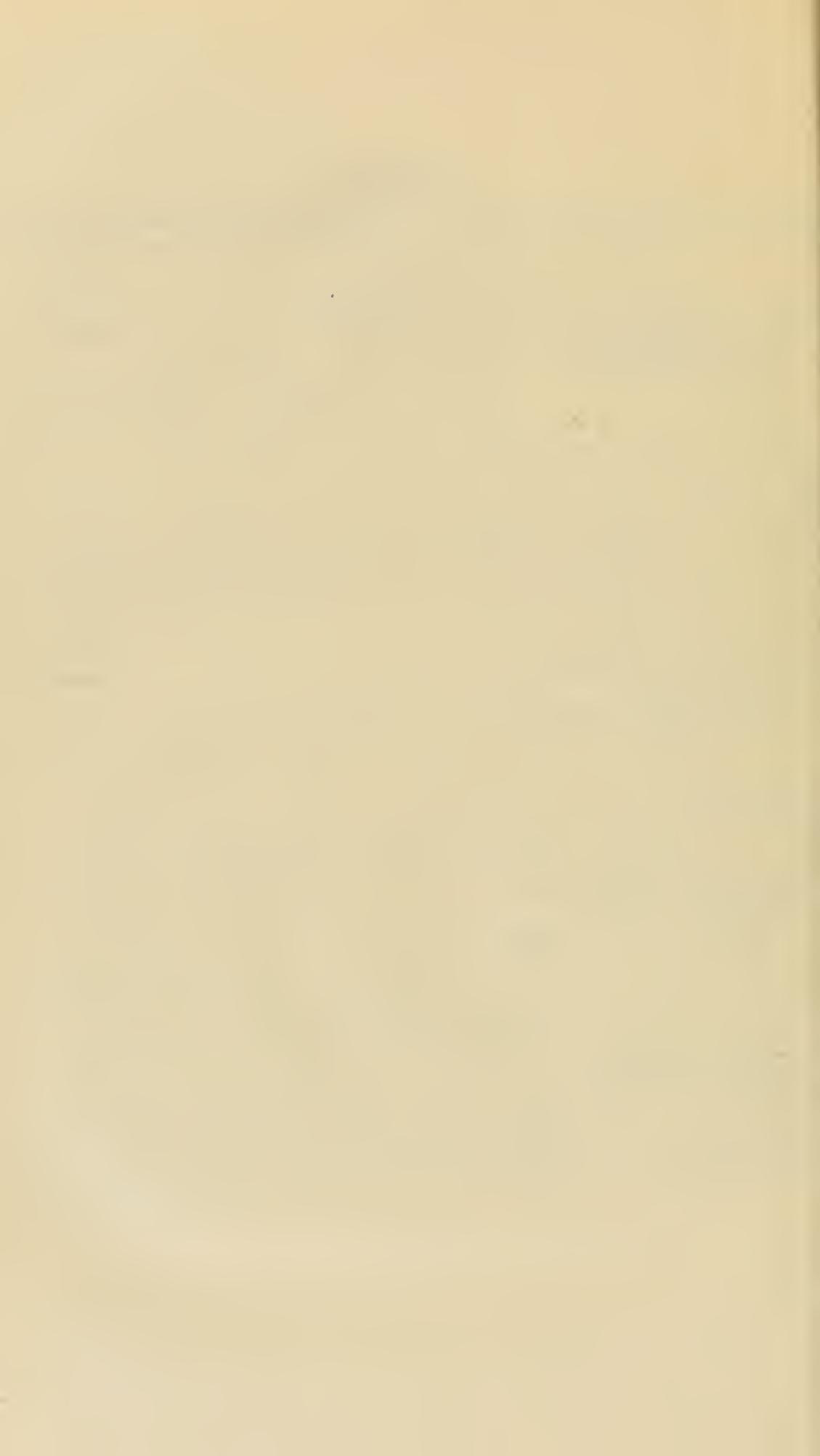


TABLE V.

HOUSING ACT, 1930.

SUMMARY OF RETURNS RECEIVED FROM RURAL DISTRICT COUNCILS IN REGARD TO HOUSING CONDITIONS OF PERSONS OF THE WORKING CLASSES.

RURAL DISTRICT.	TOTALLY UNFIT HOUSES.						PARTIALLY UNFIT HOUSES.						ESTIMATED NO. OF HOUSES REQUIRED.						NO. OF HOUSES ERECTED 1919-1930.		PROPOSED NEW HOUSES, 1932.				
	1930.	No. in Col. 2 subsequently demolished.	1931.		No. in Cols. 4 & 5 also included in Col. 2.	1930.	No. in Col. 7 subsequently rendered habitable.	1931.		No. in Cols. 10, 11 & 12 also included in Col. 7.	Houses Over-crowded, 1930.	1930.	1931.		By R.D.C.	By others.	Approved by Minister of Health.	Not yet approved by Minister of Health.	Agric. Workers.	Others.	Agric. Workers.	Others.			
			Agric. Workers.	Others.				Agric. Workers.	Others.				To meet over-crowding.	To meet normal expansion.							Agric. Workers.	Others.	Agric. Workers.	Others.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Belchamp	..	33	7	29	22	3	96	47	—	18	31	—	48	—	18	—	—	—	30	38	—	—	—	—	
Billericay	..	49	4	8	81	28	158	43	3	31	47	2	32	59	200	2	48	—	99	30	6322	—	50	—	
Braintree	..	102	38	46	34	52	208	163	—	38	24	12	—	10	130	14	11	—	552	923	28	24	42	90	
Bumpstead	..	12	5	26	1	7	53	6	—	25	—	2	19	10	32	10	—	—	73	7	14	—	10	—	
Chelmsford	..	32	2	—	25	18	36	36	—	—	—	—	—	—	154	—	—	48	60	587	1502	—	49	60	—
Dunmow	..	36	—	24	—	24	120	65	—	44	9	2	—	28	141	54	7	116	25	326	287	24	—	—	
Epping	..	39	17	1	19	18	57	52	—	21	22	4	—	29	115	—	6	(j)	337	928	—	48	—	(a)	
Halstead	..	39	2	5	—	5	102	62	—	14	23	3	—	—	—	10	—	—	148	259	—	—	—	—	
Lexden & Winstree	..	57	2	—	51	17	251	186	2	(b)	4	—	—	15	82	2	12	82	—	560	669	8	—	(c)	(d)
Maldon	..	33	9	7	5	12	61	32	—	16	10	—	—	4	170	2	2	13	15	367	516	14	14	—	—
Ongar	..	211	—	117	66	179	276	17	—	113	66	—	162	—	64	4	5	150	96	185	214	17	9	130	92
Orsett	..	19	5	11	9	1	69	69	—	14	58	2	—	5	(e)	1	4	5	150	638	1725	—	6	8	—
Rochford	..	3	1	1	17	2	8	3	—	9	34	7	—	7	5	9	20	15	26	—	242	1669	—	8	—
Romford	..	12	—	4	14	12	120	26	—	10	108	1	6	3	108	1	9	—	120	174	1696	—	—	(f)	
Saffron Walden	..	34	1	37	—	33	634	44	—	—	1	—	—	590	—	30	—	10	—	84	149	—	—	—	—
Stansted	..	2	—	—	3	2	(i)	—	—	31	142	2	5	16	150	1	18	48	—	22	58	163	6	32	70
Tendring	..	—	—	10	2	—	58	95	—	—	—	—	—	70	—	—	6	96	308	1069	12	40	—	68	

(a) None. Consider present housing needs have been met.

(b) Record not kept.

(c) Consideration of question deferred.

(d) None at present.

(e) Building programme designed to meet current requirements.

(f) 44-56 as first part of scheme.

## NOTES.

(g) Majority known to be occupied by agricultural workers.

(h) Under consideration.

(i) Houses requiring repairs are being constantly dealt with under appropriate Acts.

(j) Impossible to estimate accurately.



**TABLE XVI.**

SHOWING THE IMMEDIATE RESULTS OF TREATMENT OF DEFINITELY  
TUBERCULOUS PATIENTS DISCHARGED DURING THE YEAR 1932  
FROM INSTITUTIONS.

TABLE. XVII.

(a) SHOWING THE EXTENT OF RESIDENTIAL TREATMENT AND OBSERVATION DURING THE YEAR 1932 IN INSTITUTIONS (OTHER THAN PUBLIC ASSISTANCE INSTITUTIONS)

	In Institutions on Jan. 1st. (1)	Admitted during the year. (2)	Discharged during the year. (3)	Died in the Institutions. (4)	In Institutions on Dec. 31st. (5)
Number of doubtfully tuberculous cases admitted for observation	Adult males	2	49	48	—
	Adult females	—	33	31	—
	Children	12	82	83	—
	Total	14	164	162	—
Number of definitely tuberculous patients admitted for treatment	Adult males	187	349	283	58
	Adult females	149	254	234	8
	Children	114	148	140	3
	Total	450	751	657	69
GRAND TOTAL	.. .. ..	464	915	819	69
					491

b) SHOWING THE EXTENT OF RESIDENTIAL TREATMENT PROVIDED DURING THE YEAR 1932 IN PUBLIC ASSISTANCE INSTITUTIONS.

	In Institutions on Jan. 1st. (1)	Admitted during the year. (2)	Discharged during the year. (3)	Died in the Institutions. (4)	In Institutions on Dec. 31st. (5)
umber of patients suffering from pulmonary tuberculosis admitted for treatment	Adult males	51	127	61	72
	Adult females	43	127	64	54
	Children	2	5	5	2
	Total	96	259	130	128
umber of patients suffering from non-pulmonary tuberculosis admitted for treatment	Adult males	7	23	18	3
	Adult females	15	16	12	3
	Children	2	16	14	2
	Total	24	55	44	8
GRAND TOTAL .. .. ..	120	314*	174	136	124

\*Of this number 43 were admitted under the County Tuberculosis Scheme and therefore chargeable to the Public Health Committee.

) SHOWING THE RESULTS OF OBSERVATION OF DOUBTFULLY TUBERCULOUS CASES DISCHARGED DURING THE YEAR 1932 FROM INSTITUTIONS.

Diagnosis on discharge from observation.	FOR PULMONARY TUBERCULOSIS.						FOR NON-PULMONARY TUBERCULOSIS.						TOTALS.		
	Stay under 4 weeks.			Stay over 4 weeks.			Stay under 4 weeks.			Stay over 4 weeks.					
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.
tuberculous .. ..	3	1	—	7	8	9	1	1	2	2	—	12	13	10	23
non-tuberculous ..	14	6	4	18	12	14	2	—	8	1	2	33	35	20	59
doubtful .. ..	—	—	—	—	1	—	—	—	—	—	—	1	—	1	1
TOTALS .. ..	17	7	4	25	21	23	3	1	10	3	2	46	48	31	83

## TABLE XVIII.

## TUBERCULOSIS CARE ASSOCIATIONS IN ESSEX.

(The information given in this Table is in respect to the year ended 31st March, 1933).

Name of Association.	Day and Time of Meetings.	Income including Balance in hand.	Expenditure.		Total No. of Cases assisted.	Nature of Assistance Provided.
			Assistance.	Other Items.		
BARKING	Third Wednesday in each month at 8 p.m.	£ s. d. 315 12 6	£ s. d. 19s 7 6	£ s. d. 35 3 7	45	Extra Nourishment Clothing Fares
CHELMSFORD	Fourth Monday in each month at 7 p.m. (except August)	312 13 4	95 10 1	30 19 6	27	Extra Nourishment Clothing, Fares Convalescent Holiday Treatment Loan of Appliances
DAGENHAM	Third Thursday in each month at 8.15 p.m.	466 15 6	362 8 0	31 18 4	67	Extra Nonnourishment Dentures Fares
GRAYS	Third Monday in each month at 5.30 p.m.	251 1 8	91 4 8	6 11 7	34	Extra Nourishment Clothing, Bedding, &c. Fares, &c. Nursing Advisory
HALSTEAD	Second Tuesday in each month at 3 p.m. (except August)	Drawn from Central Fund of Halstead Care of Children Committee	3 19 0	1 3	5	Extra Nourishment Clothing
ILFORD	First Thursday in each month at 7.30 p.m.	674 17 1	494 13 1	43 11 0	94	Extra Nourishment Dentures Christmas Dinners
LEYTON	Third Friday in each month at 7.30 p.m.	559 6 4	335 15 8	19 8 4	103	Extra Nourishment Convalescent Holiday Treatment Advisory Clothing, Dentures, &c
ROMFORD	Fourth Thursday in each month at 8 p.m.	575 19 4	342 0 6	30 8 8	58	Extra Nourishment Convalescent Holiday Treatment Advisory
SAFFRON WALDEN	Fourth Tuesday in each month at 2.30 p.m.	134 18 3	89 8 3	3 12 6	47	Extra Nourishment Convalescent Holiday Treatment
WALTHAMSTOW	First Friday in each month at 7 p.m.	560 13 3	355 6 8	54 17 1	127	Extra Nourishment Fares to Hospital Convalescent Holiday Treatment Training for occupational employment

## PART III.

### MATERNITY AND CHILD WELFARE ACT, 1918.

### NOTIFICATION OF BIRTHS ACTS, 1907 & 1915.

It will be noticed that some of the usual tables have been omitted this year, but they will be resumed in one of the subsequent reports.—

(1) COUNTY AREA. The County Council was responsible during the year 1932 for administering the above Acts in the following 37 Sanitary Districts :—

The information in the following table is obtained from (a) the births actually notified to the County Health Department, (b) particulars of unnotified births furnished by the local Registrars of Births and Deaths, and (c) notifications of Perpetral Fever and Ophthalmia Neonatorum as given by the Registrar-General.

**TABLE XIX**

Sanitary Districts.	Acreage	Census Population, 1931.	No. of Births notified by		No. of Births Unnotified.	Deaths of Infants under 1 year.	Deaths of Mothers in child-birth.	No. of Notifications of	
			Midwives.	Doctors and Parents.				Puerperal Fever.	Ophthalmia Neonatorum.
Aldon B.	3,004	6,559	25	69	—	5	1	1	3
Iffron Walden B.	7,502	5,930	47	20	2	4	2	...	...
Nefleet U.	6,356	12,091	84	53	11	7	...	...	1
aintree U.	2,224	8,912	85	72	1	10	...	...	1
entwood U.	460	7,209	73	69	...	4	1	1	...
ightlingsea U.	2,852	4,145	2	40	...	2	...	...	...
rnham-on-Crouch U.	4,507	3,395	19	16	...	1	...	...	...
nvey Island U.	4,351	3,530	40	7	...	3	...	...	...
ingford U.	2,810	22,051	122	156	35	16	...	2	1
ping U.	1,420	4,956	29	43	2	2	1	1	...
inton-on-Sea U.	419	2,196	2	10	1	1	...	...	...
ilstead U.	649	5,878	32	54	2	3	...	...	...
rnchurch U.	6,783	28,417	194	298	26	33	3	2	2
rfleet U.	8,900	8,511	101	53	5	7	...	...	...
yleigh U.	5,644	6,256	43	38	13	7	1	...	...
oeburyness U.	1,031	6,717	107	23	1	8	2	...	...
altham Holy Cross U.	11,016	7,115	25	66	2	5	...	...	...
alton-on-the-Naze U.	1,951	3,066	6	24	2	1	...	...	...
est Mersea U.	3,171	2,067	4	20	..	..	...	...	...
itham U.	3,712	4,367	30	36	1	2	...	1	...
ivenhce U.	1,562	2,193	5	19	1	1	...	...	...
elchamp R.	26,501	3,983	30	13	...	3	...	...	...
llericay R.	49,393	39,694	363	255	2	40	2	5	2
aintree R.	62,352	21,876	182	138	6	13	2	1	1
impstead R.	11,873	2,304	22	5	1	4	...	...	1
elmsford R.	83,045	28,646	266	100	18	14	...	1	2
unmow R.	73,501	15,564	117	84	9	9	2	...	...
oping R.	39,057	17,345	112	97	11	11	2	...	1
alstead R.	38,715	9,843	37	76	3	3	1	2	...
exden & Winstree R.	66,246	18,970	143	133	11	19	1	...	...
aldon R.	81,961	16,280	115	94	2	6	1	...	1
agar R.	47,236	11,523	95	97	6	9	1	...	...
ochford R.	38,465	17,046	162	415	15	14	...	2	3
omford R.	16,376	15,102	104	84	2	7	2	1	...
iffron Walden R.	59,976	9,691	91	39	3	10	1	...	...
iansted R.	22,952	6,981	46	43	2	5	...	...	...
ondring R.	72,239	24,083	251	150	9	14	1	...	2
<b>Totals ...</b>	<b>870,212</b>	<b>411,489</b>	<b>3,211</b>	<b>3,009</b>	<b>205</b>	<b>303</b>	<b>27</b>	<b>20</b>	<b>21</b>

On 1st April, 1932, the Essex (Transfer of Maternity and Child Welfare Services) Order, 1932, came into operation transferring from the Waltham Holy Cross Urban District Council, the Chelmsford Rural District Council and the Lexden and Winstree Rural District Council, the powers under the Notification of Births Acts to the County Council.

(2) MEDICAL STAFF. Particulars in regard to the Medical Staff are given on page 8.

(3) HEALTH VISITORS. Owing to the increase of work in the Rochford and Billericay areas it was again necessary to re-arrange them and appoint another Health Visitor for the district in October, 1932. On 1st April, 1932, the County Council took over the whole-time services of the Waltham Holy Cross, Chelmsford Rural and Lexden and Winstree Rural Councils' Health Visitors in consequence of the Order referred to in paragraph (1) above. Facilities were granted by the County Council for the training and employment of a probationer Health Visitor in the Chingford Urban District. She commenced duty in September, 1932.

A successful Conference of Health Visitors was held on 26th February, 1932. Addresses were given by Dr. W. Burton Wood on Tuberculosis, Miss W. H. Tabor on Orthopaedics, and Miss Wilson and Mr. Knowles on Milk.

On 31st December, 1932, the Health Visiting Staff undertaking Child Welfare work on behalf of the County Council numbered as follows :—

Whole-time (also undertaking School and Tuberculosis duties)	..	..	..	..	33	Equivalent whole-time H.V. for C.W.=14.
Whole-time (part-time C.C. and part-time L.A.)					2	

N.B.—The above figures do not include the Chief Health Nurse and her Assistant.

The District Nurse-Midwives continued to assist the Health Visitors as far as possible.

#### (4) ANTE-NATAL CLINICS AND CHILD WELFARE CENTRES.

A table showing the Ante-Natal Clinics and Child Welfare Centres was given in the previous year's report. During the year under review Ante-Natal Clinics were established at Brentwood, Chelmsford, Hornchurch and Pitsea, while in addition the County Council took over the Waltham Abbey Ante-Natal Clinic.

Child Welfare Centres were established at Coggeshall, Harold Wood, Hornchurch (St. Andrew's) and Kelvedon, and on the 1st April, 1932, the following came under the County Scheme :—Boxted, Broomfield, Danbury, Dedham, East Hammingfield, Fordham, Galleywood, Great Baddow, Horndon, Ingatestone, Layer-de-la-Haye, Rowhedge, Tiptree, Waltham Abbey and Writtle. A Voluntary Centre at Mistley also commenced to participate in the County Scheme as and from 1st January, 1932. The small Centre at Ramsden Heath was closed down during the year.

The mothers attending the Child Welfare Centres show, on the whole, an intelligent interest in the care of their children. The importance of the attendance of toddlers is always stressed and mothers are encouraged to bring them up to the Centre at regular intervals.

The attendees at the Ante-Natal Clinics have been very greatly helped by the co-operation of the local doctors and midwives. The younger women take a great mount of interest in their visits and are fully alive to the bencfits and importance of careful ante-natal supervision.

(5) COMBINED TREATMENT CENTRES. Reference is made to Combined Treatment Centres on page 59 of this Report.

(6) PROVISION OF MILK. The two schemes outlined in the report for the year 1922, for the provision of Milk (a) for districts served by Centres, and (b) for districts not served by Centres were continued, with the slight amendment to the scale for determining necessitous cases set out in the Report for the year 1928.

In July, 1932, an experiment was made in certain Child Welfare Centres by making arrangements for dried milks and medicaments to be supplied through the local chemists instead of at the Centres. Later this was developed, and from October, 1932, the following scheme was adopted at the majority of the Child Welfare Centres. Exceptions had to be made where no local chemist was available :—

- (1) The National Pharmaceutical Union and other organisations have been asked to arrange for their members throughout the County to stock the dried milks, foods and medicaments, &c., particulars of which were given in a Schedule—See (4) below.
- (2) Medical Officers of Dispensaries and Welfare Centres issue a prescription form to each patient for any Dried Milks, Foods, or Medicaments recommended.
- (3) These prescription forms are coloured to indicate the following :—

White .. Dried Milks, Foods and Medicaments to be supplied at cost price. (These to be paid for at the time of purchase by the person receiving the goods.)

Blue .. Dried Milks, Foods and Medicaments to be supplied at half price. (Half price to be paid at the time of purchase by the person receiving the goods.)

Pink .. Dried Milks, Foods and Medicaments to be supplied free.

- (4) The chemists agree to charge the County Council for Dried Milks, Foods and Medicaments at the prices embodied in an approved Schedule to be kept up-to-date as and when necessary.
- (5) At the end of each quarter the chemists submit accounts with the prescriptions attached, for all Dried Milks, Foods and Medicaments supplied.
- (6) In areas where there is not a sufficient service by chemists, the County Council retain the alternative of continuing the old system.

(7) DENTAL TREATMENT. This Scheme was continued, and at the end of the year 52 Child Welfare Centre Committees had agreed to participate in the scheme. Particulars of the work carried out are as follows :—

		1930.		1931.		1932.
No of Patients who received treatment	.. ..	53	..	101	..	125
Total Cost	.. ..	£149 6 0	..	£424 6 ..	£531 18 6	
Proportion paid by County Council	£70 7 8 ..	£248 3 1 ..	£327 16 9			

These figures illustrate the rapid development of the scheme during the past two years.

(8) **HOME HELPS.** During the year 1932 nine applications were received as follows :—Braintree (2), Brentwood (1), Maldon (5), and Thaxted (1).

(9) **TRAVELLING EXPENSES OF MOTHERS ATTENDING CHILD WELFARE CENTRES.** At the end of the year 1932 twenty-one Child Welfare Centres were participating in the scheme, namely :—Bardfield, Boeking, Burnham-on-Crouch, Debden and Wimbish, East Hanningfield, Eastons, Epping, Felstead, Fordham, Great Horkestone, Harlow, Ongar, Pnrleigh, Radwinter, Rivenhall and Silver End, Rochford, Stansted, Stebbing, Terling, Thaxted and Wethersfield.

(10) **PUBLIC HEALTH (NOTIFICATION OF PUERPERAL FEVER AND PUERPERAL PYREXIA) REGULATIONS, 1926.** During the year ended 31st December, 1932, copies of notifications made by medical practitioners were received from Medical Officers of Health in the Administrative County and the County Child Welfare Area as follows :—

	Administrative County.			C.C. Child Welfare Area.		
	1930.	1931.	1932.	1930.	1931.	1932.
Puerperal Fever	..	7	80	58	..	31 20 20
Puerperal Pyrexia	..	105	156	123	..	31 44 37

(See also page 54).

(i) *Obstetric Specialist.* The arrangements for the services of the Obstetric Specialist, Andrew McAllister, Esq., F.R.C.S., of 79, Wimpole Street, W.1, previously referred to, were continued. In only one case was it found necessary to call him in consultation.

(ii) *Institutional Treatment.* During the year 1932, twenty-four patients suffering from puerperal fever or puerperal pyrexia were admitted to Hospitals and Institutions at a cost of £317 18s. 10d, the amount recovered from patients being £29 11s. 3d.

(iii) *Puerperal Fever Units at Chelmsford Public Assistance Institution and Old-church Hospital, Romford.* The valuable work carried out by these two special units which was mentioned in the report for 1931, has been continued and full advantage of the facilities has been taken by the Public Health Committee, as well as by certain autonomous child welfare authorities in the County. Details of the work carried out have been received and the following is a brief summary thereof :—

Institution.	No. of patients admitted.	Duration of Stay.					Discharged cured.	Died.
		0-7	8-14	15-21	22-28	Over 28 days.		
Chelmsford ..	20	1	5	3	2	9	*16	3
Romford ..	14	1	1	3	—	9	12	1

\*One transferred to Oldechurch Hospital.

(iv) *Skilled Nursing.* The arrangements were continued with the Essex County Nursing Association for the provision of skilled nursing in the homes of patients when circumstances render the removal of the patient to hospital difficult or impossible.

(v) *Bacteriological Examinations* of (a) *lochia*, (b) *blood*. Facilities for these examinations were available under the County Laboratory Scheme.

(11) PUBLIC HEALTH (OPHTHALMIA NEONATORUM) REGULATIONS, 1926. The arrangements made under these Regulations were fully set out in the Report for the year 1927.

During the year ended 31st December, 1932, copies of 87 notifications of Ophthalmia Neonatorum, made by medical practitioners to Medical Officers of Health in the Administrative County, were received.

Twenty-one of the above notifications relate to patients living in the County Welfare Area and the following particulars of these patients have been obtained :—

Treated At Home.	In Hospital.	Vision Unimpaired. R.	Vision Impaired. L.	Total Blindness. R.	Total Deaths. L.
15 .. 6 ..	19 ..	19 .. — ..	— .. — ..	— .. — ..	2

Two patients were admitted to Hospital during the year under the County Council's arrangement for the treatment of this disease. Both cases proved fatal.

(12) HOSPITAL TREATMENT FOR MATERNITY PATIENTS. The arrangements with certain hospitals for the admission of the following types of maternity patients were continued and extended to the Mothers' Hospital, Clapton, and the new Maternity Home established by the Colchester Corporation :—

- (a) Complicated or difficult cases of confinement where hospital treatment is essential.
- (b) Cases of confinement where, in the opinion of the Medical Attendant, the patient cannot with safety be confined in her own home.

During the year fifty patients were admitted under the above schemes at a cost £351 1s. 1d., the amount recovered from patients being £134 4s. 4d.

(13) TREATMENT OF MINOR AILMENTS—CHILDREN UNDER SCHOOL AGE. This scheme was continued and 24 children under school age received operative treatment during the year.

(14) TREATMENT OF ORTHOPAEDIC PATIENTS. Full details of the scheme for the treatment of orthopaedic patients adopted by the Public Health and Education Committees were given in the Annual Report for 1927.

As far as children of school age are concerned, these are dealt with in the School Medical Officer's Annual Report, so that the following information relates to children under school age in the County Council's Child Welfare Area :—

(a) *Number of Cases on Books.* At the end of 1932, there were approximately 62 Child Welfare patients requiring treatment, supervision or observation.

(b) *Ascertainment and Re-examination Clinics.* During 1932 Mr. Whitchurch Lowell attended 63 clinic sessions for the County Council and carried out 199 examinations of County patients under school age.

(c) *Hospital Treatment.* The following figures show the position regarding institutional treatment on 1st January, 1932, as compared with that on 1st January, 1933 :—

	Child Welfare patients recommended and accepted by Committee for hospital treatment.		Being investigated.		No. in hospital under the County Scheme.
1-1-32	..	2	..	4	..
1-1-33	..	5	..	3	..

During the year 16 patients completed hospital treatment and 15 patients were admitted into hospital.

(d) *Orthopaedic After-Treatment Clinics.* The Orthopaedic After-Treatment Clinics were continued during the year and 463 attendances of children under school age were made.

In conjunction with the Clacton Urban District Council, an After-Treatment Centre was established at Skelmersdale Road, Clacton.

### NURSING HOMES REGISTRATION ACT, 1927.

A detailed report was given in the 1928 Report of the provisions under the Act and the procedure adopted by the County Council. Regulations subsequently adopted have been referred to in previous reports.

*Particulars of Registration.* The Clerk of the Council has furnished the following information in regard to Nursing Homes for the year 1932 :—

No. of applications for Registration—Maternity Homes only (2), other Nursing Homes (2), No. of Homes registered—Maternity Homes only (2), other Nursing Homes (2). No. of Orders made refusing or cancelling registration—Maternity Homes only (Nil.), other Nursing Homes (Nil). No. of Appeals against such Orders (Nil). No. of applications for exemption from registration—Maternity Homes only (Nil), other Nursing Homes (1). No. of cases in which exemption granted—Maternity Homes only (Nil), other Nursing Homes (1).

On 25th May, 1932, the Ministry of Health issued Circular 1267 and Memorandum 161, drawing attention to the risks of accident in the use of electro-medical apparatus. Copies were circulated by the Clerk of the Council to the registered Nursing Homes and other Institutions concerned.

### CHILDREN ACT, 1908—PART I.

#### Infant Life Protection.

All the Health Visitors in the County Child Welfare Area are appointed Infant Life Protection Visitors and make visits of inspection at intervals of at least once a quarter to each foster-mother and child registered.

At the end of the year there were 561 registered foster children in the care of 368 foster-mothers.

On 1st January, 1933, important alterations in the Law relating to persons who undertake or propose to undertake the reception of children under the age of 9 years for reward will come into effect. By Section 65 (1) of the Children and Young Persons

, 1932, the age of children coming within Part I. of the provisions of the Children Act, 1908, has been raised from 7 years to 9 years. In addition, the new Act requires persons receiving infants for reward to give notice to the Local Authority of the name, date and place of birth of the child, and also the name of the person undertaking nursing and maintenance, the address where it is to be or is being kept and the name of the person from whom it is received as follows :—

- (a) In the case of the first child proposed to be received for reward, not less than seven days before its reception.
- (b) In the case of any other child, not less than 48 hours before its reception.
- (c) In the case of a child already received without reward within 48 hours after entering into the undertaking to receive for reward.

### MIDWIVES ACTS, 1902-1926.

(a) PRACTISING MIDWIVES. During the year under review 338 midwives notified their intention to practise in the Administrative County, excluding the Colchester, Ilford, Leyton and Walthamstow Midwives. Of these, 292 were actually practising at the end of the year 1932. These midwives are classified as follows :—

Total No. of Midwives in practice at end of year.	Trained.		L.O.S. Certificated.			<i>Bona-fide.</i>
	Dep.	Indep.	Dep.	Indep.		
292 ..	156 ..	124 ..	2 ..	9 ..		1

The total number of live births and still births which occurred during the year 1932 in the Administrative County, excluding Colchester, Ilford, Leyton and Walthamstow Boroughs, was 13,405, and of these 5,985 (44.6 per cent.) were attended by midwives in the capacity of a midwife, and 2,502 (18.7 per cent.) as maternity nurses under the supervision of medical practitioners.

(b) HANDYWOMEN. During the year 1932 reports were received regarding two cases of confinement attended by two women who were not certified and who acted as midwives without being under the direction and personal supervision of a registered medical practitioner. Letters of warning were sent by the County Medical Officer.

(c) NOTIFICATIONS. The following list shows the number of notifications received from certified midwives in accordance with the rules of the Central Midwives Board during the year as compared with the previous four years :—

	1928.	1929.	1930.	1931.	1932.
Records of Medical Aid ..	1851 ..	2085 ..	2285 ..	2006 ..	2036
Records of Still-births ..	114 ..	109 ..	117 ..	103 ..	96
Deaths of Mothers ..	9 ..	6 ..	10 ..	4 ..	5
Deaths of Infants ..	69 ..	70 ..	73 ..	78 ..	66
Artificial Feeding ..	51 ..	74 ..	78 ..	54 ..	54
Liability to be a source of Infection *207 ..	*257 ..	*303 ..	*281 ..	*251	
Laying-out for Burial ..	222 ..	230 ..	235 ..	258 ..	261
Ophthalmia Neonatorum or Discharging Eyes ..	184 ..	250 ..	294 ..	237 ..	†237

\*This figure includes all cases of high temperature.

†Includes 20 cases notified as Ophthalmia Neonatorum.

## Puerperal Fever, Puerperal Pyrexia and Ophthalmia Neonatorum.

Special investigations were made into all cases of high temperature of mother and discharging eyes of infant in a midwife's practice. The results of these investigations showed that during 1932, in six cases of high temperature and six of discharging eyes, the rules of the Central Midwives Board were not properly carried out. Warning letters were sent or verbal cautions given to the midwives concerned.

During the year 1932, the total number of live births in the Administrative County, less the Boroughs of Colchester, Ilford, Leyton and Walthamstow, was 12,954, and the number of patients notified as suffering from Ophthalmia Neonatorum was 55, i.e., 4.2 per one thousand births.

## Pemphigus Neonatorum.

All suspected cases of Pemphigus Neonatorum occurring in a midwife's practice are investigated with a view to seeing that every possible precaution is taken to prevent a spread of the disease.

Enquiries were made into 55 suspected cases, occurring in Barking (5), Billericay R. (3), Dagenham U. (36), Dunmow R. (1), Lexden and Winstree R. (1), Orsett R. (3), Purfleet U. (2), Romford R. (1), Saffron Walden R. (1), and Tilbury U. (2).

Two midwives received a written caution for infringement of the rules.

## Inspection Visits.

Eleven hundred and eighty-seven routine visits were made to midwives during the year, and of these 38 were undertaken by Assistant County Medical Officers and 1,149 by the Chief Health Nurse and her Assistant, and the Relief Health Visitor.

Written cautions were sent to 9 midwives for minor infringements of the rules other than those referred to in the paragraphs relating to Puerperal Fever, Ophthalmia Neonatorum and Pemphigus Neonatorum above.

In no instance was it found necessary to report a midwife's conduct and mode of practice to the Committee or the Central Midwives Board.

## Doctors' Fees.

In accordance with Section 14 of the Midwives Act, 1918, during the year ended 31st December, 1932, the County Council paid the sum of £2,285 11s. 9d. as fees to medical practitioners and recovered from patients during the year the sum of £593 15s. 9d.

The following comparative table is of interest, shewing (a) the number of medical aid notices received from midwives during the past five years, and (b) the corresponding number of doctors' claims made against the County Council in respect of such notices. This table shows that the percentage of confinements in which medical aid was sought is still increasing.

Year.	No. of Medical Aid Notices received from Midwives.	Percentage of Confine- ments attended by Midwives in which medical aid was sought.	No. of Medical Aid Notices for which Doctors' claims have been received.	Total amounts of claims. £ s. d.	Amounts re- covered from patients. £ s. d.		
					£	s.	d.
1927	..	1592 ..	21.6 ..	1056 ..	1,545	5	0 ..
1928	..	1851 ..	23.7 ..	1153 ..	1,825	2	3 ..
1929	..	2085 ..	25.3 ..	1352 ..	2,112	19	6 ..
1930	..	2285 ..	31.9 ..	1507 ..	2,225	19	6 ..
1931	..	2006 ..	33.8 ..	1495 ..	2,106	15	6 ..
1932	..	2036 ..	33.9 ..	1564 ..	2,285	11	9 ..

### lectures.

The Essex Midwives Association arranged a special course of lectures in Welmsford, which was held in May and June, 1932. A. J. Wrigley, Esq., F.R.C.S., commenced the course with a lecture on the Administration of Drugs in Midwifery. Owing to illness he could not complete the course, and the subsequent lectures were given by J. Fairburn, Esq., F.R.C.S., Chairman of the Central Midwives Board, Arthur Bell, Esq., F.R.C.S., and Dr. Mary Blair.

The lectures were greatly appreciated by the 75 midwives who attended the course. The County Council assisted the Association by a grant towards the lecturers' fees, travelling expenses, &c.

### Essex County Nursing Association.

(a) GENERAL. For the year 1932 the sum of £8,438 11s. was paid by the County Council to the County Nursing Association in accordance with the agreement.

(b) AGREEMENT. At the time of writing the County Council have approved of the following revision in the Agreement between them and the Essex County Nursing Association. This will take effect from 1st April, 1933.

That the County Council do agree to pay to the Essex County Nursing Association £10 per year in respect of each car provided for a District Nurse Midwife carrying out duties for a District Nursing Association affiliated to the Essex County Nursing Association; such sum, unless otherwise agreed, to be paid into a post office savings bank account to be opened for that purpose by each District Nursing Association claiming to receive such grant.

Also

That the District Nursing Associations receiving such grant be also required to pay into such account forthwith any money collected or received by them for the Motor Car Fund.

Also

That provision be made, in connection with all post office accounts above referred to, that withdrawal of money therefrom can only be made by a representative of the Local Association concerned, the County Accountant and the County Superintendent of the Essex County Nursing Association acting jointly.

**Also**

That grants from such motor car accounts be made only upon a renewal of the motor car for the use of a District Nurse-Midwife performing duties for a District Nursing Association affiliated to the Essex County Nursing Association.

**Also**

That in the event of a District Nurse-Midwife ceasing to use a motor car provided with the aid of a grant from the County Council, the amount paid into the Fund of such Association by the County Council from the date of the purchase of the car, together with interest thereon shall be refunded to the County Council.

**Also**

That the foregoing arrangement be brought into effect on the 1st April, 1933, and do remain in operation for a period of five years unless determined by either party giving the other six calendar months notice in writing terminating on the 31st day of March in any year.

(c) **DISTRICT NURSING ASSOCIATIONS.** At the end of 1932 the number of District Nursing Associations in the Administrative County which were affiliated to the County Nursing Association and which employed 183 Nurses, was as follows :—

No. of affiliated D.N. Associations.	No. undertaking Midwifery and District Nursing.	No. performing Maternity and District Nursing duties only.
153	144	9 (4 of which undertake general nursing only).

District Nurses belonging to affiliated Associations during the year 1932 made the following visits :—Midwifery 38,145, Maternity 31,093, District General 204,686, District Tuberculosis 4,105, Health Visiting—Pre-natal 23,292, Post-natal 35,030, and Home Visits (School Children) 8,878.

Of the 153 affiliated Associations, 147 participate in the County Council's Combined Nursing Scheme.

(d) **PARISHES SERVED—**

Number in the County (excluding extra-Metropolitan area)	..	377
Number served by affiliated District Nursing Associations	..	323

This leaves 54 parishes not served by affiliated District Nursing Associations.

## GENERAL.

(a) **Maternal Mortality.**

On 29th August, 1932, the Ministry of Health issued Circular 1285 and Memo. 164/M.C.W., requesting the Council to continue arrangements for confidential investigations into maternal deaths. These were made in cases where there were any special indications suggesting investigation.

During the year under review the Departmental Committee of the Ministry of Health issued its Final Report on Maternal Mortality and Morbidity. The County Medical Officer in November, 1932, submitted a report to the County Maternity and Child Welfare Sub-Committee, who made the following recommendations to the County Council :—

That the County Medical Officer of Health be instructed to consider the arrangements that can be made for calling in medical practitioners as Consultants in difficult and complicated cases of confinement and to submit a report to the Sub-Committee.

Also

That the County Medical Officer of Health be authorised to confer with the Essex Rural Community Council with a view to arranging panels of voluntary workers in the County Council's Child Welfare Area who would be willing to assist in the conveyance of mothers to Ante-natal Clinics.

Also

That, subject to the approval of the Minister of Health, and to the undermentioned conditions being complied with, in cases where an independent midwife refers a patient to an Ante-natal Clinic or calls in a medical practitioner, and the patient is recommended for admission to hospital for confinement, the County Council do agree, for an experimental period of twelve months from the 1st April, 1933, to pay to the midwife compensation at the rate of 10s. 6d. per patient :—

That in each case the patient confirms the statement that she had engaged the midwife to attend her confinement, and had been referred by the midwife to an Ante-natal Clinic, and that the Medical Officer of the clinic certified that he or she advised the patient to be confined in a hospital or home.

In cases where a midwife has called in a medical practitioner in accordance with Rule E.20 of the Rules framed by the Central Midwives Board, and the patient has subsequently been admitted to a hospital or home for the confinement, any claim for payment or compensation must be accompanied by a certificate from the medical practitioner called in that he advised the removal of the patient to a hospital or home.

Also

That the County Medical Officer of Health be authorised to arrange with the British Red Cross Society, St. John's Ambulance Brigade or other organisations for a blood transfusion service at a fee of not exceeding £1 1s. per transfusion for the donor and other expenses in individual cases as required, and that patients be required to contribute towards this expenditure in accordance with their means.

#### (b) Survey.

The result of the Survey of the Maternity and Child Welfare Services in the County Area made by the Ministry of Health in 1931 was received in June, 1932.

#### (c) Nutrition.

Circular 1290, dated 27th October, 1932, issued by the Ministry of Health, contained certain recommendations of the Advisory Committee on Nutrition.

A copy was sent to the Medical Officers of Child Welfare Centres and Ante-natal Clinics, together with a report by the County Medical Officer, and they were asked to give the matter careful consideration.

**(d) Post-Graduate Course—Independent Midwives.**

Up to the time of writing, approval has been given to two independent practising midwives participating in the scheme outlined in the Report for the year 1932.

**(e) Birth Control.**

In accordance with the suggestions contained in Memorandum 153/M.C.W., issued by the Ministry of Health on this subject, a number of patients have been given advice on medical grounds and fitted with contraceptive appliances.

**(f) Report of Chief Health Nurse.**

The Chief Health Nurse (Miss D. M. Landon) has furnished the following report in connection with her duties during 1932 :—

(a) **HEALTH VISITING.** The Health Visitors continue to carry out their work conscientiously. One of the great difficulties experienced by the majority is the giving of Mothercraft teaching at Child Welfare Centres. In order to overcome this difficulty, the Health Visitors at Maldon and Burnham-on-Crouch have developed the educational side of their work by the formation of Mothers' Clubs. The meetings are held in the evenings independently of the Child Welfare Centres, and all mothers are made welcome. Children's clothes are made, lectures are given and discussions held on matters of helpful interest to the mothers. These clubs are managed by a Committee of the members.

The Health Exhibitions have been of great value in the teaching side of the work, and they are particularly useful in the small country villages where it is difficult to create interest in health matters.

(b) **DISTRICT NURSE-MIDWIVES.** The work of the Essex County Nursing Association has mainly developed in the direction of the purchase of motor cars by local Associations. This has enabled additional areas to be nursed, and in many cases has saved the employment of extra District Nurse-Midwives.

So far this appears a satisfactory development as, apart from enlarging the Nurse's sphere of usefulness in the scattered country districts, she is enabled to arrive at her patients fresh and clean, and pay additional visits without undue fatigue.

The Dagenham Branch Training Home has had to be enlarged, and now provides accommodation for an additional seven nurses. Dagenham is giving excellent training material and experience for the younger Midwives before going into the County.

(c) **MIDWIFERY.** The standard of Midwifery during the year has been well maintained, no Midwives having been reported to the Board or summoned to appear before the Maternity and Child Welfare Committee for infringement of the Rules.

There is a steady improvement in Ante-natal work, and this is largely due to the increased number of Ante-natal Clinics throughout the County. Nearly all the Midwives thoroughly appreciate this and the helpful kindness of the Medical Officers and Health Visitors in charge, who make them feel welcome and give them every assistance and encouragement to examine their own patients.

### COMBINED MEDICAL SERVICE.

The Combined Medical Service Scheme, outlined in detail in previous reports, was continued during the year with the following alterations :—

(a) *Barking.* The arrangements with the Barking Borough Council whereby their Medical Officer performed the duties of Tuberculosis Officer on behalf of the County Council, were terminated in January, 1932.

(b) *Wivenhoe.* Owing to the death of Dr. G. T. Kevern, part-time Medical Officer of Health for the Wivenhoe Urban District, Dr. W. H. Alderton, the Combined Medical Officer in the West Mersea Urban and Lexden & Winstree Rural Districts, was appointed also as Medical Officer of Health for the Wivenhoe Urban District, commencing duty on 15th July, 1932.

(c) *Burnham-on-Crouch.* Dr. E. Miles continued to hold the appointment of Medical Officer of Health in the Burnham-on-Crouch Urban District, but in regard to his County Council duties, he relinquished these in the Maldon and Burnham districts in order to take up duty on 1st July, 1932, on the Central Staff.

(d) *Grays, Purfleet, Tilbury and Orsett.* The large increase of work in this area led to the appointment of Dr. C. Ive as Assistant Medical Officer of Health and Assistant County Medical Officer in these districts, and he commenced duty on the 17th October, 1932.

(e) *Chelmsford.* Dr. J. C. Sleigh, formerly Assistant County Medical Officer, commenced duty as Medical Officer of Health for the Chelmsford Borough on 1st May, 1932. By arrangement, he performs the duties of Tuberculosis Officer in the Chelmsford Borough and Rural District for the County Council.

### COMBINED TREATMENT CENTRES.

The new Combined Treatment Centre at Laindon was officially opened by the Chairman of the County Council on the 30th September, 1932.

In November, 1932, the School Clinic and Tuberculosis Dispensary at Romford was transferred from 29, Eastern Road to Oldchurch Hospital, Romford, by arrangement between the Public Health and Public Assistance Committees.

Other new Combined Treatment Centres are in course of preparation and will be referred to in future reports.

## PART IV.

### PUBLIC ASSISTANCE.

#### General.

The year under review has been one of further steady progress in the health side of the work of the Public Assistance Committee. Close collaboration with the work of the Public Health Committee was maintained and certain new services instituted where they were not available under the auspices of other Committees. The chief difficulty in 1932 has been the accommodation of Public Assistance patients suffering from tuberculosis, particularly in the South-Western area, due to the number of beds available by agreement in Whipps Cross Hospital being exceeded. At the end of the year further active steps were being taken to overcome the difficulty.

The special Puerperal Fever units established at Oldchurch Hospital, Romford, and at the Public Assistance Institution, Chelmsford, have again proved most successful and a brief summary of the work carried out is referred to on page 50.

A Lady Supervisor (Mrs. B. C. Burden) commenced duty in July, 1932, and has rendered valuable assistance in connection with the supervision of the Children's Homes and the management of Public Assistance Institutions from the standpoint of the accommodation for women. Her duties also include regular consultations with Matrons and Superintendent Nurses so as to advise on nursing and administrative matters and in connection with this branch of her work she reports to the appropriate Committee through the County Medical Officer.

Another useful step forward during the year was the appointment in July, 1932, of a Contracts Officer, Mr. H. J. Burden, whose duties include the preparation and co-ordination of contracts for Public Assistance Institutions, inspection and checking of Institution stores, purchase and storage of goods, &c. The advantages of this appointment have been amply demonstrated from the standpoint of the Public Assistance work and might usefully be extended in other directions.

#### Institutional Accommodation for the Sick.

A separate table dealing with each Institution is given below, together with a few brief notes of any extensions or alterations which have taken place during 1932 and suggestions for future consideration :—

##### *Colchester Institution.*

Name of Medical Officer :

Dr. W. F. Payne.

Address of Institution :

14, Poplars Lane, Colchester.

Telephone No. Colchester 3259.

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro- vided.	Ocu- pied.	Pro- vided.	Ocu- pied.	Pro- vided.	Ocu- pied.	Pro- vided.	Ocu- pied.
Chronic Sick ..	12	74	51	66	59	—	—	140	110
Children ..	—	—	—	—	—	8	2	8	2
Maternity ..	1	—	—	3	—	—	—	3	—
<b>Total ..</b>	<b>13</b>	<b>74</b>	<b>51</b>	<b>69</b>	<b>59</b>	<b>8</b>	<b>2</b>	<b>151</b>	<b>112</b>

*Improvements and Remarks.* The accommodation in the casual wards was poor and improvements are being carried out at an estimated cost of £995. It was decided to install an oil burning plant for central heating at a cost of £1,234 in the Infirmary Block. The coal consumption cost was originally relatively high.

Extensions and improvements were also approved for the Nurses' Home at a cost of £3,325. There were also minor improvements to the Maternity Block at a cost of £112.

*Stanway Institution.*

Name of Medical Officer :

Dr. W. F. Payne.

Address of Institution :

Stanway, Colchester.

Telephone No. : Colchester 3303.

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Medical ..									
Surgical ..	7	34	26	27	19	—	—	61	45
Chronic Sick ..									
Tuberculosis ..	2	2	1	2	1	—	—	4	2
Total ..	9	36	27	29	20	—	—	65	47

*Improvements and Remarks.* Provision was made for obtaining a reserve water supply from the Colchester Corporation at a cost of £189 18s. 10d.

The Casual Wards were closed on July 1st, 1932, and the scheme previously mentioned in regard to the extension of this Institution so as to enable the Colchester Institution to be closed is still held up.

*Tendring Institution.*

Name of Medical Officer :

Dr. F. Atthill.

Address of Institution :

Tendring, Clacton-on-Sea.

Telephone No. : Manningtree 46.

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Medical ..									
Surgical ..	13	37	34	54	43	—	—	91	80
Chronic Sick ..									
Children ..	2	—	—	—	—	10	9	10	9
Tuberculosis ..	3	5	—	10	1	—	1	15	2
Maternity ..	2	—	—	2	1	—	—	2	1
Mental ..	—	—	—	—	4	—	—	—	4
Total ..	20	42	34	66	52	10	10	118	96

*Improvements and Remarks.* The Infirmary was erected in 1901 and the buildings are in good condition.

Excellent additional accommodation for tuberculosis patients has been provided by closing in four verandahs at a cost of £185 6s. 6d.

*Braintree Institution.*

Name of Medical Officer :  
Dr. T. W. Panter.

Address of Institution .

Rayne Road, Braintree.  
Telephone No. : Braintree 24.

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Medical	..								
Surgical	..								
Chronic Sick	..								
Children	..								
Maternity	..								
Total	..	9 and 2 Day Rooms	31	31	56	50	9	7	96
									88

*Improvements.* Approval was obtained for improvement and enlargement of the casual wards at a cost of £5,332.

*Saffron Walden Institution.*

Name of Medical Officer :  
Dr. H. Bartlett.

Address of Institution :

Saffron Walden.

Telephone No. : Saffron Walden 32.

(Terminated duty 31-12-32 and succeeded by Dr. Justinian Bartlett).

Classification of Wards.	No. of Wards	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Medical	..								
Surgical	..								
Chronic Sick	..								
Maternity	..								
Total	..	9	28	26	32	28	—	—	60
									54

*Remarks.* The Institution was erected over 100 years ago. The buildings are dark, damp and dilapidated, and there is no central heating. The Institution is out of date and is not suitable for modernising.

*Epping Institution.*

Name of Medical Officer :  
Dr. C. E. Denning.  
(Terminated duty 31-12-32 and succeeded by Dr. Roy Evans).

## Address of Institution :

The Plain, Epping.

Telephone No. : Epping 30.

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Medical ..	8	36	33	38	33	2	2	76	68
Surgical ..									
Chronic Sick ..	7	27	7	52	37	—	—	79	44
Tuberculosis ..	2	3	—	3	3	—	—	6	3
Isolation ..	—	—	—	—	—	4	4	4	4
Maternity ..	1	—	—	3	—	—	—	3	—
Mental : Long stay	—	4	4	6	6	—	—	10	10
Total ..	18	70	44	102	79	6	6	178	129

*Improvements and Remarks.* The buildings taken as a whole are in fair condition and there is land belonging to the Institution, for extension.

The Nursing Staff is accommodated in the top storey of the Infirmary, but this is inadequate and a new Nurses' Home at a cost of £10,999 is in the process of being erected.

*Orsett Institution.*

Name of Medical Officer :  
Dr. F. A. M. Nelson.

## Address of Institution :

Orsett, Grays.

Telephone No. : Orsett 8.

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Medical ..	13	59	50	82	71	14	15	155	136
Surgical ..									
Chronic Sick ..	3	11	7	10	2	—	—	21	9
Tuberculosis ..	4	—	—	7	—	—	—	7	—
Maternity ..	2	3	2	3	2	—	—	6	4
Mental... (Short stay)									
Total ..	22	73	59	102	75	14	15	189	149

*Improvements and Remarks.* The original buildings date from 1837 with subsequent additions made in 1907 and 1910. A new Female Infirmary was completed in 1930.

Approval was obtained for the following improvements to be carried out :—

- (1) Provision of a verandah, giving additional accommodation to seven infirm cases at a cost of £187.

(2) Extensions to present casual wards, £335.  
 (3) Provision of equipment for the Nurses' Home, £460 15s. 3d.

*Oldchurch Hospital, Romford.*

Name of Medical Superintendent :  
 Dr. W. S. O'Loughlin.

Address of Institution :

Oldehureh Road, Romford.  
 Telephone No. : Romford  
 418-419 (two lines).

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro- vided.	Ocu- pied.	Pro- vided.	Ocu- pied.	Pro- vided.	Ocu- pied.	Pro- vided.	Ocu- pied.
Medical ..	3	40	40	53	53	—	—	93	93
Surgical ..	6	70	70	83	83	—	—	153	153
Chronic Sick ..	6	80	80	110	110	—	—	190	190
Children ..	3	—	—	—	—	129	129	129	129
Tuberculosis ..	2 Pav.	43	43	54	54	1	1	98	98
Isolation ..	1 Block	—	—	2	2	17	17	19	19
Maternity ..	1	—	—	30	15	—	—	30	15
Mental ..	2	15	10	15	11	—	—	30	21
(Short stay)									
Total ..	24	248	243	347	328	147	147	742	718

*Improvements and Remarks.* The buildings generally are in good structural condition. The Hospital Block was erected in 1893 and enlarged in 1909 and 1925. Further additions were made in 1930.

Cooking and other technical equipment was purchased to complete the equipping, &c., for the Nurses' Home at a cost of £2,300.

Rooms in the former administrative office block in the Institution have been adapted to enable it to be used as a Combined Treatment Centre.

The Puerperal Fever unit established in 1932 at this Institution has continued very satisfactorily.

*Billericay Institution.*

Name of Medical Officer :  
 Dr. J. Douglas Wells.

Address of Institution :

The Retreat, Billericay.  
 Telephone No. : Billericay 2.

Classification of Wards.	No. of Wards.	BEDS.							
		Men		Women.		Children (under 16).		Total.	
		Pro- vided.	Ocu- pied.	Pro- vided.	Ocu- pied.	Pro- vided.	Ocu- pied.	Pro- vided.	Ocu- pied.
Medical ..	12	28	20	28	18	—	—	56	43
Surgical ..									
Chronic Sick ..									
Children ..	1	—	—	—	—	7	—	7	—
Maternity ..	1	—	—	4	4	—	—	4	4
Tuberculosis ..	1	2	—	1	1	—	—	3	1
Total ..	15	30	20	33	23	7	5	70	48

*Remarks.* There is plenty of land attached to this Institution and there are facilities for future development.

*Chelmsford Institution.*

Name of Medical Officer :  
Dr. J. T. Whitley.

Address of Institution :

48, Wood Street, Chelmsford.  
Telephone No. : Chelmsford 61.

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Medical									
Surgical									
Chronic Sick									
Children	4	52	33	52	51	—	—	104	84
Tuberculosis									
Maternity	1	—	—	—	—	4	3	4	3
Puerperal									
Total	2	3	—	3	3	—	—	6	3
		10	6	—	—	—	—	10	6
		2	—	—	—	—	—	2	—
Total	7	55	33	67	60	4	3	126	96

*Improvements and Remarks.* Approval was obtained for improvements to the casual wards at this Institution at a cost of £2,150.

The Puerperal Fever unit established in 1931 at this Institution has continued very satisfactorily.

*Maldon Institution.*

Name of Medical Officer :  
Dr. M. J. T. Wallis.

Address of Institution :

32a, Spital Road, Maldon.  
Telephone No. : Maldon 35.

Classification of Wards.	No. of Wards.	BEDS.							
		Men.		Women.		Children (under 16).		Total.	
		Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.	Pro- vided.	Occu- pied.
Medical									
Surgical									
Chronic Sick									
Children	4	25	24	23	19	—	—	48	43
Tuberculosis									
Maternity	—	—	—	—	—	—	3	—	3
Total	1	3	—	2	2	—	—	5	2
		4	—	—	—	—	—	4	—
Total	5	28	24	29	21	—	3	57	48

*Remarks.* The Institution was built in 1873 and the buildings are in good condition. There is some unused accommodation, and it is proposed to utilise this accommodation to relieve any overcrowding in other Institutions by transferring suitable cases.

There is need for more adequate accommodation for the Nursing Staff, and it has been provisionally agreed that sketch plans be made, and it is hoped to proceed with this matter at an early date.

## OUTSIDE INSTITUTIONS—ACCOMMODATION.

Additional sick beds are occupied at certain outside Institutions by agreement, e.g., Whipps Cross Hospital, Rochford Hospital, Bishop's Stortford Institution, Edmonton Institution, &c.

### Children's Homes.

The following Table (XX) gives particulars of the Children's Homes in the Administrative County, together with the number of beds available and beds occupied at the end of December, 1932 :—

TABLE XX.

Area.	Address of Home.	(1) Beds available 31st December.		(2) Beds occupied 31st December.		(3) Revised Accommodation. Beds available.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Colchester ..	Villa Road, Stanway ..	28	23	28	23	25	24
	Tendring Institution Grounds ..	30	30	25	24	25	25
Braintree ..	" Friars," 31, Bradford Street, Bocking ..	16	15	16	15	29	20
Saffron Walden ..	New Street, Dunmow ..	10	10	10	8		
Epping ..	Coopersale ..	27	19	27	19	18	26
South Eastern ..	Whitehall Road, Little Thurrock ..		14		8		14
Southern ..	Romford ..	97	71	85	68	85	63
Chelmsford ..	Writtle ..	32	—	32	—	29	—
	Beehive Lane, Great Baddow ..	—	24	—	22	—	20
	The Gables, Maldon ..	26	—	23	—	26	—
	" Foxcroft," Billericay ..	—	25	—	23	—	25

Enquiries were made into the accommodation available at Children's Homes, particularly as to the floor space and cubie air space per child, and as a result the accommodation in Children's Homes was reduced by 43 beds to allow for approximately 40 square feet of floor space per child. The suggested revised accommodation figures of the Children's Homes in the Administrative County are given in Column 3 of above Table.

The Tiptree Cottage Home, owing to its isolated position, was considered unsuitable and was closed during the year and the children accommodated at The Gables, Maldon. The land and buildings at Tiptree were sold.

As mentioned, above the Gables, Maldon, was purchased during the year and opened as a Children's Home with accommodation for 26 boys. " Foxcroft," Billericay, was opened as a Children's Home on 1st December, 1932, and equipment purchased at a cost of £495.

In several of the Homes an attempt is made to achieve isolation by setting aside one particular room for this purpose, but this is unsuitable for prolonged isolation, and provision was consequently made for special isolation blocks to be available for non-notifiable infectious diseases as follows :—

Romford Institution ..	..	..	30 beds.
Orsett Institution ..	..	..	10 beds.
Colehester or Tendring Institution ..			10 beds.

*Improvements and Alterations.* The following is a list of the improvements and alterations undertaken by the Public Assistance Committee at the various Children's Homes during the year.—

Renovations and improvements at "Foxcroft," Billericay, for adapting it as a Girls' Home at a cost of £410 and furnishing at £425. External painting and internal alterations at Epping Cottage Homes at a cost of £243.

Renovations and improvements to The Gables, Maldon, by converting it into a Boys' Home at a cost of £553 and furnishing at £325 7s. 1d.

Renovations and repairs at Romford Children's Home, 26 and 28, Manor Road, at a cost of £122, and Romford Children's Home, 112 and 114, Heath Park Road, at a cost of £150.

New Children's Home at Tendring erected at an estimated cost of £4,960 and equipment for this Home at £480.

#### **Items specially reported upon during the Year.**

Special consideration and detailed investigation was given to many varied questions during the year. Among the chief matters dealt with were the following :—

##### *Milk Supply.*

Every endeavour was made to keep the milk supply to the Public Assistance Institutions of good quality and of a prescribed standard.

Arrangements were made for the Food and Drugs Inspectors to take two samples each month, as the milk is delivered to each Public Assistance Institution for chemical and bacteriological examination.

Grade A (Tuberculin Tested) Milk was purchased whenever possible for use in the Children's Homes.

##### *Consultants' Services.*

(a) *Consultant Surgeon.* Hamilton Bailey, Esq., F.R.C.S., was appointed as Consultant Surgeon and took up duty on the 1st May, 1932. He is available for one session per week, mainly at Oldchurch Hospital, Romford, but elsewhere if required. The appointment has already proved of great advantage.

Arrangements are now being made for the services of a Consultant Surgeon to be available in the northern part of the County.

(b) *Tuberculosis Consultants. Orthopaedic Surgeon. Consultant for Nervous Diseases.* Sir Henry J. Gauvain, Dr. W. Burton Wood, B. Whitchurch Howell, Esq., F.R.C.S., and Dr. W. G. Masefield, have continued the services referred to in the Report for 1931.

(c) *Consultant Ophthalmologist.* On the 1st July, 1932, T. Collyer Summers, Esq., F.R.C.S., took up duty as Consultant Ophthalmologist to attend mainly at Oldchurch Hospital, Romford. Mr. Summers attends weekly sessions,

(d) *Ear, Nose and Throat Specialist.* Further consideration was given to the appointment of an Ear, Nose and Throat Specialist, and accordingly C. Hamblen Thomas, F.R.C.S., took up duty on the 1st May, 1933.

(e) *Skin and Radium Department—Oldchurch Hospital.* Full particulars of this Department are mentioned in last year's Annual Report and valuable work is being done under the supervision of Dr. Arthur Burrows. Every effort has been

made to make full use of the Department by close co-operation with District Medical Officers and by a survey of all patients suffering from cancer admitted into Public Assistance Institutions.

#### *Dental Treatment.*

By arrangement with the Education Committee, the services of the whole-time School Dental Surgeons are being utilised during school holiday times for the dental survey and treatment of patients in Public Assistance Institutions, Children's Homes, &c.

With regard to dental treatment by local part-time Dentists, the Committee approved of a new scale of charges relating to extractions, fillings, sealings, &c., based on the scale laid down in the National Health Insurance Act.

#### *Ophthalmia Neonatorum.*

Having regard to the importance of early and efficient treatment for this condition, special facilities have been provided at Oldchurch Hospital, Romford, and specially trained nursing assistance is available. This service will be most helpful to the Public Health Committee, who have made arrangements with the Public Assistance Committee to send in suitable children (accompanied by the mother if necessary) for a reasonable weekly charge.

#### *Blood Transfusions.*

During the year a report was submitted in regard to the provision of blood transfusions for persons for whom the Public Assistance Committee were responsible, and arrangements have been made with two Voluntary Organisations for the services of suitable donors to be available at the cost of not exceeding one guinea per case, plus travelling expenses.

#### *Dietaries.*

The experimental dietaries referred to in the Report for 1931, were brought into operation from October, 1932, and the reports so far received from the Masters of the various Institutions show that they have proved highly satisfactory. The inauguration of the new dietary caused difficulties with regard to cooking facilities in one or two of the Institutions which involved expenditure in bringing the kitchen equipment up-to-date, and consideration has also been given in one or two instances to an increase in staff.

Generally the feeding of the inmates according to appetite instead of the prescribed quantity laid down and the greater variety of meals has not resulted in any great increase in the cost and has eliminated a good deal of waste.

At the present time the dietaries in Children's Homes are receiving consideration.

#### *Examination of Bacteriological Specimens.*

The arrangements with Dr. J. F. Beale were mentioned in my Report for 1931, and full details of the work carried out during the past year are set out on pages 16—18.

### *Supply of Drugs.*

The general question of the supply of drugs to the Institutions (other than Oldchurch Hospital, Romford) where the Medical Officers are part-time was considered. As a result arrangements have been made whereby the Institutions are supplied with stock drugs at contract prices, and these drugs are dispensed under the supervision of the Medical Officers. Facilities are at the same time provided so that any urgent prescriptions can be dispensed by local chemists.

### **Boarded-out Children.**

At the end of 1932 the Public Assistance Committee were responsible for 144 boarded-out children, who are supervised in some areas by voluntary visitors and in others by part-time salaried officials.

### **Medical Staff.**

(a) INSTITUTIONS. Particulars of the Medical Officers of the various Institutions are given on pages 60—65.

(b) DISTRICT MEDICAL OFFICERS. There are 115 District Medical Officers in the Administrative County. As changes are continually taking place there is no point in giving the full list in this report.

### **Co-operation with Medical Staff.**

Close co-operation between the Medical Officers of Institutions and District Medical Officers and the County Public Health Medical Staff was maintained throughout the year. Assistance was rendered wherever possible by arranging the transfer of patients from one Institution to another.

### **District Medical Officers.**

(a) SUPERVISION. Special visits have been paid to District Medical Officers where necessary, chiefly in connection with the revision of terms of appointment, maintenance of records, &c. Friendly co-operation has been maintained, but it has not yet been possible to inaugurate a regular system of visiting and supervision.

(b) NEW SYSTEM OF RECORDS. Consideration was given to the vast amount of unnecessary clerical work required from District Medical Officers by the system of keeping records of persons in receipt of Out-door Medical Relief in bound registers, and the submission of fortnightly returns to the Area Clerks of such persons on the form laid down in the Public Assistance Order, 1930.

With the approval of the Ministry of Health, a new system based on a Card Index Register (similar to that used under the National Health Insurance Act) has been brought into use as and from 1st April, 1933. Instead of fortnightly returns, a brief quarterly summary of the number of patients in receipt of out-door relief has been substituted. Arrangements have also been made for the Area Clerks and Relieving Officers to keep in close touch with the District Medical Officers in regard to new

patients taken on to the registers. It is hoped the new system will relieve District Medical Officers of considerable clerical work with a consequent increase in the amount of time which they can devote to their medical duties.

### Legislation.

#### MINISTRY OF HEALTH CIRCULARS, ETC.

In March, the Ministry of Health issued Circular No. 1258 notifying County Councils that as and from the beginning of January, 1933, Article 7 (relating to the detention of casuals for two days) of the Public Assistance (Casual Poor) Order, 1931, would be brought into operation.

### Arrangements between Voluntary and Municipal Hospitals.

Table XXI gives a summary of the number of beds provided at Voluntary General Hospitals and Public Assistance Hospitals in each Guardians Committee's Area in the County of Essex at the middle of 1932. The figures do not include beds in special hospitals, such as sanatoria, mental hospitals, fever hospitals, maternity hospitals, &c., and they do not include hospitals and institutions, situate in Essex, but provided by outside authorities for their own patients.

It will be seen from this Table that the following hospital accommodation exists in, or is utilised by, the Administrative County of Essex :—

Kind of Hospital.	Total No. of Beds.	No. of Beds per 1,000 of the Population.
Public Assistance Hospitals ..	2,667*	2.2
Voluntary Hospitals ..	918	0.8
<b>Total</b> ..	<b>3,585</b>	<b>3.0</b>

\*These include 725 beds provided by Public Assistance Authorities other than the Essex County Council.

Before going into details of this Table, a few general observations may be useful. It is not often appreciated how much change has taken place in the management and functions of the Voluntary Hospitals throughout the country. Originally, Voluntary Hospitals were supported by gratuitous contributions from various sources to provide treatment for persons who were unable to pay out of their own resources. In other words they were charitable institutions.

Voluntary Hospitals have now become centres of highly specialised and complex services to which the great majority of the whole population look for help and assistance. Voluntary Hospitals have become increasingly the Hospitals of the worker and his dependents. There is an urgent national demand that the benefits of the fully staffed and equipped Hospital shall not be denied to any class in the community and in particular shall be available at reasonable rates for those who cannot meet the cost of private nursing homes and yet whose means are above the income level of the insured person. Hence arose the various contributory schemes and also the provision of private beds or wards in or outside hospital buildings.

It may be said that in respect to most Voluntary Hospitals to-day there is only left a portion of the original voluntary system. Beds which would otherwise have been sufficient for the poor are now occupied by the relatively better off. This is one reason for the greater demand for chronic beds in institutions provided by the Public Authorities. It should also be noted that Voluntary Hospitals receive an increasing proportion of their annual expenditure from Public Authorities for services rendered, e.g., treatment of venereal diseases, maternity cases, operations for tonsils and adenoids, tuberculosis, &c., &c.

Contemporaneously with this change in the function and management of Voluntary Hospitals, there has been a change in the work carried out by the late Boards of Guardians, now replaced by the County Councils and County Boroughs. The Guardians were primarily responsible for the care of the destitute, but on the medical side this relief has been extended in recent years by the gradual widening, with official sanction, of the meaning of the term 'destitute.' In an increasing number of districts this term now denotes any persons unable to provide for themselves the particular form of medical treatment of which they may be in urgent need. Hence in many districts, large Municipal or County Council Hospitals, comparable with the best Voluntary Hospitals, have grown up. In our own County, Whipps Cross, Oldham, and the Roehampton Institutions are outstanding examples.

In another part of this section it will be observed that considerable improvements in respect to the consulting medical and surgical staff in connection with the Public Assistance Institutions have already been made.

The Local Government Act of 1929 is the starting point of fresh developments in the hospital services of the whole country. Section 13 of that Act was definitely introduced so that there should be the closest possible co-operation between Voluntary and Municipal Hospitals in securing a common policy and in achieving a common aim. In spite of the fact that there are a certain number of empty beds in certain Poor Law Infirmaries in parts of the country at certain times in the year, it is recognised on all sides that the increasing demand of the public is quite inadequately met by the present general and special hospital accommodation. This increasing demand is accentuated in the County of Essex owing to the abnormal growth of population in recent years. Moreover, there seems every prospect that this demand will not cease to increase as the years go on, largely owing to the greater success of treatment by means of specialised and expensive instruments and equipment, e.g., X-rays, light treatment, radium, &c. Another factor not to be ignored is the number of road accidents which are almost automatically sent off to the nearest hospital. Further, the present practice of building small houses with limited bedroom accommodation, means that in case of illness there is a much greater liability on the part of the residents to seek hospital accommodation than might otherwise be the case.

(a) SOUTHERN AREA. In my Annual Report of 1930 I gave a Table on page 36a showing the accommodation and the extent of the waiting list at the various Voluntary Hospitals situated in or serving the County. Owing to the extraordinary rate of growth of population in metropolitan Essex, the provision of beds in Voluntary Hospitals has got into considerable arrears, and the late Romford Board of Guardians

was literally forced to provide at Oldchurch an institution which to all intents and purposes has served the function of a general hospital for the district.

It will be noticed that the total hospital accommodation in the Southern Area is 2.8 beds per thousand population, whereas a moderate estimate of the number of beds required for a crowded urban population like this would be 4.0 to 5.0 beds per thousand population.

It is well known that tremendous efforts were required to provide the necessary funds to build the present King George Hospital, Ilford, and it is doubtful if another effort of a similar character can be made in metropolitan Essex for many years to come. Unless this huge growing district is going to be short of hospital beds which are required to cure disease and improve the health of the inhabitants, there will have to be necessarily an increase in the number of beds provided by Public Authorities.

There is an alternative method of providing the needed accommodation in the future, and that is by the County Council subsidising capital and/or maintenance charges for Voluntary Hospitals, but so far the amount of contributions of this character have been on a small scale.

(b) SOUTH EASTERN AREA. Table XXI shows that there are 3.8 hospital beds per thousand population in this district. It is not likely that Voluntary sources will provide the necessary capital and maintenance costs to provide the additional number of beds required. It is a matter for careful consideration whether the Council should not consider the development of the Orsett Institution on somewhat similar lines to that of Oldchurch Hospital.

(c) SOUTH WESTERN AREA. Table XXI shows that the number of hospital beds in the South Western Area is 2.1 per thousand population. The County Council have purchased in this area a site for a new Public Assistance Institution at West Hatch, Chigwell, which has an area of 50 acres, and it will be a matter for early consideration as to the nature of the accommodation to be provided on this site.

(d) CENTRAL AREA (CHELMSFORD AND BRAINTREE AREAS) The number of beds in the Chelmsford and Braintree Areas is 2.9 and 2.3 beds per thousand population respectively. The Voluntary Hospital at Chelmsford has made splendid efforts to increase the accommodation, and consequently there is no urgent necessity to do anything at the moment in the centre of the County.

(e) EPPING AND SAFFRON WALDEN AREA. A site has been acquired at Takeley to build a new Institution which will replace the existing Saffron Walden Institution, but owing to economic considerations, actual building has been deferred for the present. In the meantime some additional accommodation at Epping appears to be necessary, and also it is possible to arrange for extra beds at the Voluntary and Public Institutions in Bishop's Stortford.

(f) COLCHESTER AREA. Consideration has been given to improving the accommodation for the sick at the Colchester and Stanway Institutions, but the matter has been deferred on account of the necessity for restricting capital expenditure.

TABLE XXI.

## SUMMARY OF BEDS AT MUNICIPAL AND VOLUNTARY HOSPITALS.

Guardians Committee Area.	Popn. Census, 1931.	Public Assistance Hospitals.		Voluntary Hospitals.		Total Hospital Accommodation.	
		Total No. of Beds.	No. of Beds per 1,000 Popn.	Total No. of Beds.	No. of Beds per 1,000 Popn.	Total No. of Beds.	No. of Beds per 1,000 Popn.
Raintree ..	57,163	96	1.7	36	.6	132	2.3
Helmsford ..	128,315	261	2.0	113	.9	374	2.9
Bolchester ..	133,884	326	2.4	218	1.6	544	4.0
Pipping .. ..	40,937	208*	5.1	39	0.9	247	6.0
Giffon Walden ..	38,166	131†	3.4	41	1.0	172	4.5
Southern ..	351,125	810	2.3	169	.5	979	2.8
South Eastern ..	109,673	322‡	2.9	99	.9	421	3.8
South Western ..	339,338	513**	1.5	203	.5	716	2.1
	1,198,601	2,667	2.2	918	.8	3,585	3.0

\* Includes 33 outside beds.

†     "     51     "

‡     "     128     "

\*\* all the 513 are outside beds.

It should be noted that these outside beds must be replaced by the Essex County Council making provision to replace them some time between the years 1940 and 1950.



TABLE XIV

(a) PULMONARY TUBERCULOSIS.

(a) PULMONARY TUBERCULOSIS.

The Table is arranged according to the years in which the patients were first entered on the Dispensary Registers as definite cases of pulmonary tuberculosis, and their classification at that time.



TABLE XXIII.  
CAUSES OF DEATH—YEAR 1932.

(Figures supplied by the Registrar-General).

SANITARY DISTRICT.	URBAN.																	RURAL.																Special Causes (Included in Column 36).					
	Typhoid and Paratyphoid Fever.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Influenza.	Encephalitis Lethargica.	Cerebro-Spinal Fever.	Tuberculosis of the Respiratory System.	Other Tuberous Diseases.	Syphilis.	Diabetes.	Cancer, Malignant Disease.	Cerebral Haemorrhage, &c.	Heart Disease.	Aneurism.	Other Circulatory Disease.	Bronchitis.	Pneumonia (all forms).	Other Respiratory Diseases	Peptic Ulcer	Diarrhoea, &c. (under 2 years.)	Appendicitis.	Cirrhosis of Liver.	Acute and Chronic Nephritis.	Other Puerperal Causes.	Suicide.	Causes ill-defined or unknown.	Total.	Polioencephalitis.									
BARKING.	(1) 3	(2) 15	(3) 4	(4) 2	(5) 5	(6) 14	(7) 1	(8) 46	(9) 10	(10) 1	(11) 1	(12) 4	(13) 60	(14) 16	(15) 103	(16) 3	(17) 16	(18) 19	(19) 6	(20) 37	(21) 6	(22) 6	(23) 10	(24) 6	(25) 1	(26) 1	(27) 4	(28) 14	(29) .	(30) 1	(31) 25	(32) 5	(33) 6	(34) 22	(35) 38	(36) 1	506		
BENFLEET.	.	1	.	.	1	1	1	1	2	3	1	1	26	1	11	51	1	8	6	3	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	162			
BRAINTREE.	.	1	.	1	1	3	1	1	3	3	1	1	21	2	7	19	1	7	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	110			
BENTWOOD.	.	2	.	.	.	3	1	1	1	1	1	1	2	8	1	12	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	79			
BRIGHTLINGSEA.	.	1	1	1	1	3	1	1	1	1	1	1	2	8	1	12	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	57			
BUCEHRS'S HILL.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	52			
BURNHAM-ON-ROUH.	.	1	1	2	3	3	13	1	3	10	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19			
CANVEN ISLAND.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	57			
CHELMSFORD B.	1	1	2	3	3	13	1	3	10	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	201			
CHINGFORD.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	245			
COLCHESTER B.	.	1	1	2	3	3	13	1	3	10	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	176			
DAGENHAM.	1	1	2	3	3	13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	540			
EPPING.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	614			
FRINTON.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50			
GHAYS.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	24			
HALSTEAD.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	213			
HARWICH B.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	96			
HORNCOURT.	1	9	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	125			
LEYTON B.	28	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	1162			
LOUGHTON.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
MALDON B.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1341			
PURFLEET.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	63		
KAYLEIGH.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	84			
ROMFORD.	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	73			
SAFFRON WALDEN B.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	365			
SHOEBURYNESS.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
TILBURY.	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	90			
WALTHAM HOLY CROSS.	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	80			
WALTHAMSTOW B.	20	2	3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	198			
WALTON-ON-THE-NAZE.	20	2	3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	58			
WANSTEAD.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1348			
WEST MEERSEA.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	37			
WITHAM.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	200			
WIVENHOE.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22			
WOODFORD.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
RURAL.	4	20	5	26	7	120	5	1	132	40	6	7	496	38	200	732	13	200	134	146	28	24	17	25	15	28	93	108	5	12	115	41	132	266	26	3462	1	1	
BORO' & URBAN.	4	116	18	52	41	231	14	13	551	125	13	34	1205	101	488	1967	26	311	374	515	96	87	101	70	30	40	227	268	20	36	391	332	124	298	30	9132	2	1	
TOTAL FOR ADMINISTRATIVE COUNTY.	8	136	23	78	48	351	19	14	683	165	19	41	1701	139	688	2699	39	511	508	661	124	111	118	95	45	68	320	376	25	48	506	527	165	420	1059	56	12594	2	2



TABLE XXIV.

## NOTIFICATIONS OF INFECTIOUS DISEASE AND ATTACK RATES, 1932.

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(Figures obtained from the Weekly Notification Returns.)

SANITARY DISTRICTS.	Estimated Population 1932.	SCARLET FEVER.		DIPHTHERIA.		ENTERIC FEVER.		PUERPERAL FEVER.		PUERPERAL PYREXIA.		ERTSIPELAS.		OPHTHALMIA NEONATORUM.		TUBERCULOSIS, RESPIRATORY.		OTHER TUBERCULAR DISEASES.		PNEUMONIA.		ENCEPHALITIS LETHARGICA.		AUTOPOLYMYELITIS.		SMALLPOX.		VARIOUS.		TOTAL.						
		No.	Per 1,000	No.	Per 1,000	No.	Per 1,000	No.		No.	Per 1,000	No.	Per 1,000	No.	Per 1,000	No.	Per 1,000	No.	Per 1,000	No.	Per 1,000	No.	Per 1,000	No.	Per 1,000	No.	Per 1,000	No.	Per 1,000							
URBAN.																																				
BARKING B.	60330	178	2.9	101	1.7	17	0.3	2		7	0.6	13		94	1.6	34	0.6	124	2.1	2	2	5	466	1082												
BENFLEET	12690	11	0.9	21	1.6	1	0.1	2	0.2			1		6	0.5	1	0.1	7	0.2		1	1		51												
BRAINTREE	5940	9	1.0	1	0.1	2				1		1		9	1.0	8	0.9	7	0.8	1				43												
BRENTWOOD	7448	28	3.7	17	2.3					1		0.1		10	1.3	3	0.3	7	0.9					1	68											
BRIGHTLINGSEA	4183	1	0.2											5	1.2	2	0.5	7	1.7						15											
BUCKHURST HILL	5560	31	5.6	3	0.5	1	0.2							3	0.5	1	0.2	5	0.9						46											
BURNHAM-ON-Crouch	3372	4	1.2		0.5									3	0.9	4	1.2								13											
CANVEY ISLAND	3897	8	2.0	2	0.5									13	3.3	1	0.2	20	5.1						45											
CHELMSFORD B.	27030	83	3.1	1	0.0	1	0.0	2		10	1	0.0	4		23	0.8	6	0.2	7	0.2						138										
CHINGFORD	24600	66	2.7	23	0.9					2				13	26	0.3		53	1.1	10	0.2	121	2.4						145							
CLACTON-ON-SEA	15770	24	1.5	1	0.1	2	0.1			2				1	15	0.3		13	0.8	4	0.2	10	0.6						29	91						
COLCHESTER B.	49430	85	1.7	33	0.7	2	0.0	2		2				13	26	0.3		104	1.1	42	0.4	106	1.1						292	616						
DAGENHAM	92600	359	3.9	10 <sup>1</sup>	1.1	2	0.0			1				1	1	0.2		12	2.4	1	0.2	7	1.4						805							
EPPING	5099	20	3.9	5	1.0									1											20	68										
Frinton-on-sea	2055	4	1.9																																	
GRAYS	18530	14	0.7	24	1.3																															
HALSTEAD	5899	1	2.2											2	5	0.3		14	0.7	6	0.3	36	1.9	1					17	1	120					
HARWICH B.	12560	98	7.8	4	0.3									1				7	1.2	3	0.5	3	0.5						15							
HORNCHURCH	35720	57	1.7	56	1.7	3	0.1	2		4	0.2			3	0.6	5	0.4	14	1.1									132								
ILFORD B.	137480	257	1.9	84	0.6	21	0.1	9		3	0.6			16	64	12	0.9	42	0.3	126	0.9	4	1.1	2	1	197										
LETTON B.	127149	359	2.8	155	1.2	6	0.1	3		1	0.1			16	64	136	1.1	38	0.3	86	0.7	3	1.4	724	1616											
LOUGHTON	7716	2	0.3	25	3.2									5	12	3	0.1	4	0.5	3	0.4						35									
MALDON B.	6696	27	4.0	1	0.1	2	0.3	1		2	0.3			5	12	4	0.3	39	1.0	17	0.4	12	0.3	1	2	4	211									
PURFLEET	8725	4	0.5	6	0.7	1	0.1			3	1	0.1		1	7	0.8		6	0.9	3	0.4	4	0.6				16									
RAYLEIGH	6678	12	1.8	2	0.3					1	0.1			1	7	0.8		24	1.4	10	0.6	26	1.5	2				43								
ROMFORD	38960	89	2.3	16	0.4	3	0.1	7		1	0.1			5	12	4	0.3	20	0.7	2	0.5	23	0.3	1	21	64										
Saffron Walden B.	6242	10	1.6	1	0.2					1	0.1			1	7	1	0.1	39	1.0	17	0.4	12	0.3	1	2	4	211									
Shoeburyness	6865	28	4.1	1	0.2					1	0.1			1	7	0.8		24	1.4	10	0.6	26	1.5	2				43								
TILBURY	16820	21	1.2	56	3.3					2	0.4			5	7	0.7		2	0.3	15	0.4	4	0.6					4	74							
Waltham Holy Cross	6950	27	3.9	3	0.4					2	0.4			5	7	0.7		2	0.3	16	1.0	2	0.5	4	74	226										
Walthamstow B.	135010	445	3.3	354	2.6	5	0.0	6		20	49	0.4		9	153	1.1	34	0.2	188	1.4	6	0.7	11	990	2270											
Walton on-the-Naze	2926	2	0.7	11	3.8					1	0.4			1	7	0.4		22	1.1	7	0.4	24	1.1					2	12							
Wanstead	19420	31	1.6	42	2.2	3	0.2	1		1	0.1			1	7	0.4		1	0.5	1	0.5	2	0.7					225	363							
West Mersea	2076	3	1.4											1				1	0.2			3	0.7					5								
Witham	4512	2	0.4											1				15	0.9	4	0.2	2	0.2						16	24						
Wivenhoe	2241	1	0.4											1				4	1.8	2	0.9	1	2					9								
Woodford	25530	58	2.3	26	1.0									8	0.3			17	0.7	6	0.2	36	1.4	1	2	2	157									
	955700	2459	2.6	178	1.2	73	0.1	45		100	358	0.4		75		978	1.0	330	0.3	1050	1.1	13	28	60	2900	9647										
RURAL.																																				
BELCHAMP	3978	95	2.3	33	0.8	2	0.0	5		5	0.4		2		2	0.5	2	0.5	19	0.4	23	0.5						4								
Billericay	41980	20	0.9	1	0.1	2	0.1	1		7	0.3		1		11	0.5	12	0.5	20	0.9						397										
Braintree	27580	20	1.0	1	0.1					3	0.1			1		2	0.9	1	0.4																	
Bumpstead	2289	4	1.7	1	0.4					2	0.1			2		17	0.6	8	0.3	7	0.2	1						74								
Chelemsford	28790	34	1.2	5	0.2					3	0.1			2		17	0.6	8	0.3	7	0.2	1						10								
Dunmow	15960	53	3.3	8	0.5	2	0.1	1		2	0.1			1		23	1.3	8	0.4	13	0.7							81								
Epping	17610	17	1.0	10	0.6	1	0.1	1		2	0.1			1		9	0.9	1	0.1	1	0.1															



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